



PL2303TA
USB to Serial Bridge Controller
(Chip Revision 1E)



Compatibility Test Report

Version 1.1
May 24, 2012

Prolific Technology Inc.

For Sales Release (CONFIDENTIAL)

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Prolific Technology Inc.

7F, No. 48, Sec. 3, Nan Kang Rd.
Nan Kang, Taipei 115, Taiwan, R.O.C.
Tel: 886-2-2654-6363
Fax: 886-2-2654-6161
Email: sales@prolific.com.tw
URL: <http://www.prolific.com.tw>

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1. Version Change Note

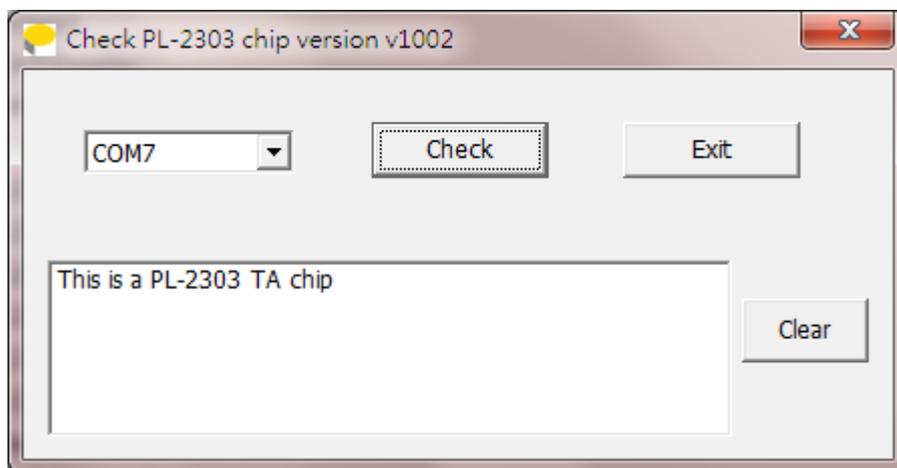
Version	Change Information	Date
1.1	<ul style="list-style-type: none"> ➤ Updated WHQL Driver Installer v1.6.0 ➤ Updated Windows 8 Consumer Preview 8250 Test ➤ Updated EEPROM Writer v2.0.0.6 	May 24, 2012
1.0	<ul style="list-style-type: none"> ➤ PL2303TA Compatibility Test Report 	January 5, 2012

2. Product Overview

PL2303TA provides a convenient solution for connecting an RS232-like full-duplex asynchronous serial device to any Universal Serial Bus (USB) capable host. PL2303TA highly compatible drivers could simulate the traditional COM port on most operating systems allowing the existing applications based on COM port to easily migrate and be made USB ready without having to rewrite the COM port software application.

By taking advantage of USB bulk transfer mode, large data buffers, and automatic flow control, PL2303TA is capable of achieving higher throughput compared to traditional UART (Universal Asynchronous Receiver Transmitter) ports. When real RS232 signaling is not required, baud rate higher than 115200 bps could be used for even higher performance. The flexible baud rate generator of PL2303TA could be programmed to generate any rate between 75 bps and 6M bps.

PL2303TA is exclusively designed for mobile and embedded solutions in mind, providing a small footprint that could easily fit in to any connectors and handheld devices. With very small power consumption in either operating or suspend mode, PL2303TA is perfect for bus powered operation with plenty of power left for the attached devices. Flexible signal level requirement on the RS232-like serial port side also allows PL2303TA to connect directly to any 3.3V~1.8V range devices.



3. USB-IF Logo Compliance Test

The Universal Serial Bus (USB) specification defines the product design targets at the level of interfaces and mechanisms. To complement the specification and enable measurement of compliance in real products, the USB-IF has instituted a **Compliance Program** that provides reasonable measures of acceptability. Products that pass this level of acceptability are added to the Integrators List and have the right to license the USB-IF Logo.

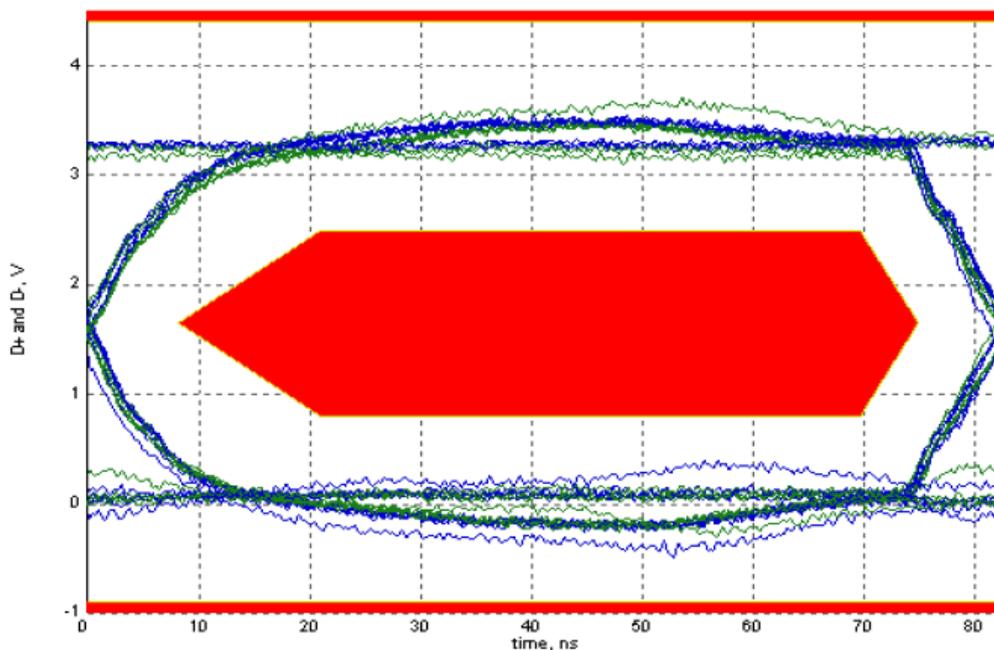
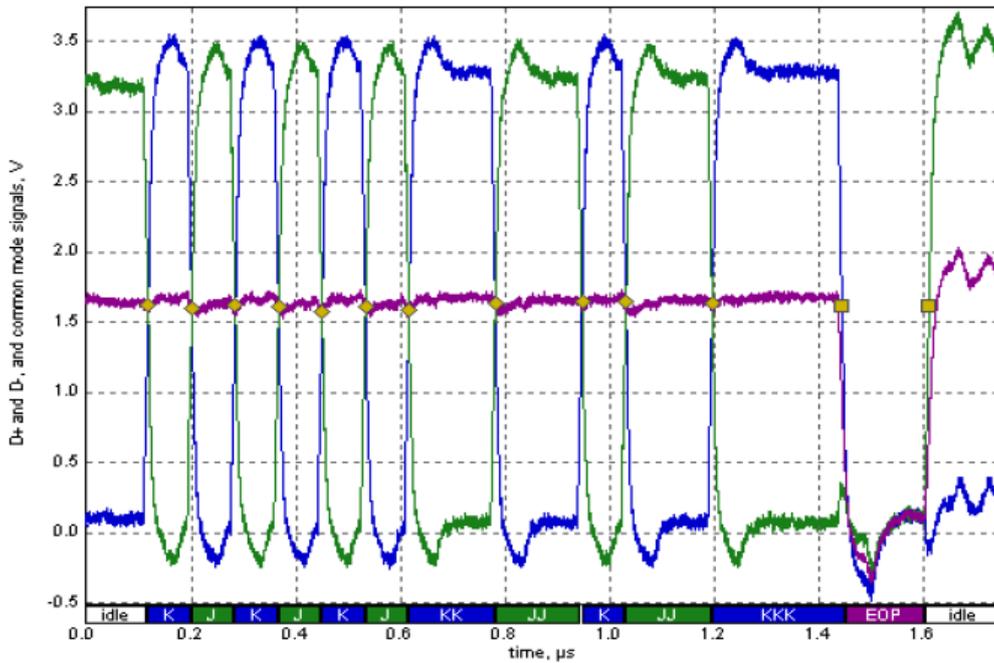


The PL2303TA was tested by SGS Lab (NTS) and passed USB-IF Full Speed Logo Compliance Test (Electrical, Interoperability, and Functional) and is already listed on the USB-IF Product Compliance website with Silicon TID # **40001305**:

http://www.usb.org/kcompliance/view/view_item?item_key=338e735ab216d496e245ab4c64c4a2b6a58f141e&referring_url=/kcompliance

This is a screenshot of a web browser displaying the USB-IF Product Compliance website. The navigation bar at the top includes links for Home, About USB-IF, Channel, Press, Developers, Members, and Products. The main content area shows the breadcrumb path: Product Search > Compliance Home > View Catalog Item. The product title is "PL2303TA USB-to-Serial Bridge Controller" by Prolific Technology, Inc. To the left of the text is an image of the PL2303TA chip. To the right is a table with product details: Web Site (http://www.prolific.com.t...), Revision (1E), Contact (Clement Yang, Lead Product Manager, with a Contact by Email link), and TID (40001305). Below the table is a detailed description of the chip's capabilities and performance. At the bottom, there are category links and navigation buttons for back and done.

Type	Description	Result	Notes
Electrical	Full Speed Signal Quality	PASS	
	Inrush Current	PASS	
Device Framework Test	Current Measurement – USB Descriptor (MaxPower)	PASS	
	Current Measurement – Unconfigured Current	PASS	
	Current Measurement – Configured Current	PASS	
	Current Measurement – Suspended Current	PASS	
	Current Measurement – Operating Current	PASS	
	Chapter 9	PASS	
	Back Drive Voltage	PASS	
Interoperability	Windows XP Professional SP2	PASS	
Functionality Verification with USB 3.0 PDK	USB30CV Chapter 9	PASS	
	Basic Functionality	N/A	



4. Windows Logo Compliance Test



The Windows Logo Program is designed to address the current and future market needs of customers using the Windows platform. The Windows logo signifies the compatibility and reliability of systems and devices with the Windows operating system. It gives customers confidence that the product is thoroughly tested with Microsoft-provided tools and ensures a good user experience.

The PL2303 Driver Installer v1.5.0 or above includes support for the PL2303TA chip. The driver was tested using Windows Logo Kit (WLK 1.6) and submitted for Microsoft WHQL logo driver signature. Please go to Prolific support website to download the latest drivers: <http://www.prolific.com.tw/eng/downloads.asp?ID=31>

[PL2303_Prolific_DriverInstaller_v1.6.0.zip](#)

2012/5/3

1.6.0

PL-2303 USB to Serial Bridge Controller Windows Driver Installer Setup Program
 Installer version & Build date: 1.6.0 (2012-4-26)
 Windows 2000/XP/Server2003 (32 & 64-bit) WDM WHQL Driver: v2.1.30.193
 Windows Vista/7/Server2008/Server2008R2 (32 & 64-bit) WDF WHQL Driver: v3.4.31.231
 Windows 8 (32 & 64-bit) WDF WHQL Driver: v3.4.31.231
 Installer Language Support: English (default), Chinese (Traditional), Chinese (Simplified), Japanese
 For Prolific USB VID_067B&PID_2303 and PID_2304 Only



Windows hardware certification report: Approved

Submission ID:	1495405
Submission date:	4/25/2012
Hardware certification completion date:	4/26/2012
Company:	Prolific Technology Inc.
Product name:	PL2303 Prolific WDMv2130193 WDFv3431231 WHQL Driver
Category:	Device
Subcategory:	Unclassified
Qualification level:	Signature Only - Microsoft Windows 2000 family - Unclassified
	Signature Only - Microsoft Windows XP family, x86 - Unclassified
	Signature Only - Microsoft Windows XP family, x64 - Unclassified
	Signature Only - Microsoft Windows Vista family, x86 - Unclassified
	Signature Only - Microsoft Windows Vista family, x64 - Unclassified
	Signature Only - Device - Compatible with Windows 7
	Signature Only - Device - Compatible with Windows 7 x64

Download Microsoft Logo Verification Report:

<https://sysdev.microsoft.com/zh-TW/Hardware/LogoVerificationReport.aspx?sid=1495405>

Windows Logo Kit (WLK 1.6) Test Items Summary:

No.	Test Name	Test Results
1	USB Address Description Test (Automated)	PASS
2	USB Descriptor test (Automated)	PASS
3	USB Device Control Requests (Automated)	PASS
4	USB Enumeration Stress (Automated)	PASS
5	USB Selective Suspend (Automated)	PASS
6	USB Specification Compliance (Automated)	PASS
7	USB Isochronous Alternate Interface Presence (Automated)	PASS
8	USB Device Framework (CV) (Manual)	PASS
9	USB Serial Number (Automated)	PASS
10	USB System Suspend Resume Test	PASS
11	USB Disable Enable (Automated)	PASS
12	USB Driver Level Re-Enumeration Test	PASS
13	USB-IF Test Certification ID Check	PASS
14	Device Install Check for Other Device Stability	PASS
15	Device Install Check for System File Consistency	PASS
16	Run INFTest against a single INF	PASS
17	Plug and Play Driver Test	PASS
18	CHAOS - Concurrent Hardware And OS Test	PASS
19	IO Cancellation with DevPathExer	PASS
20	Device Path Exerciser	PASS
21	Embedded Signature Verification	PASS
22	IO Cancellation with Direct IO on local disk	PASS
23	WDF Logo Tests - Final	PASS
24	Verify WDF Coinstaller Version for KMDF	PASS
25	Verify Driver Load Order Group is not WdfLoadGroup	PASS
26	Sleep Stress With IO	PASS
27	Disable Enable With IO	PASS
28	Common Scenario Stress With IO	PASS
29	Reinstall With IO	PASS

NOTE:

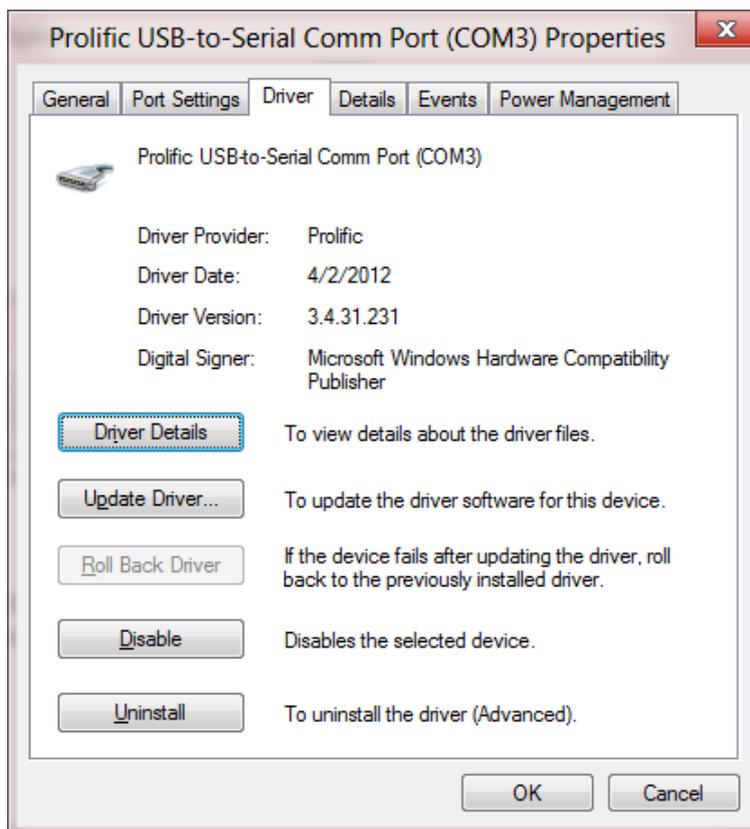
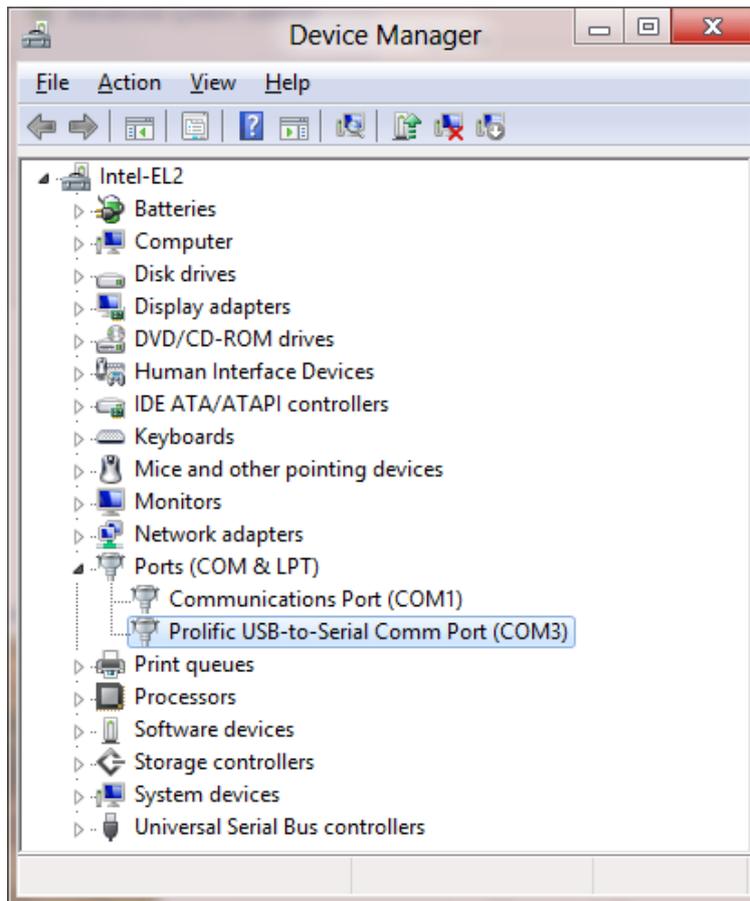
Above WLK Tests were done using PL2303TA under Windows XP (SP3 32-bit and SP2 64 bit), Windows Vista SP2 (32-bit and 64 bit), and Windows 7 SP1 (32-bit and 64 bit).

5. Windows OS Compatibility Test

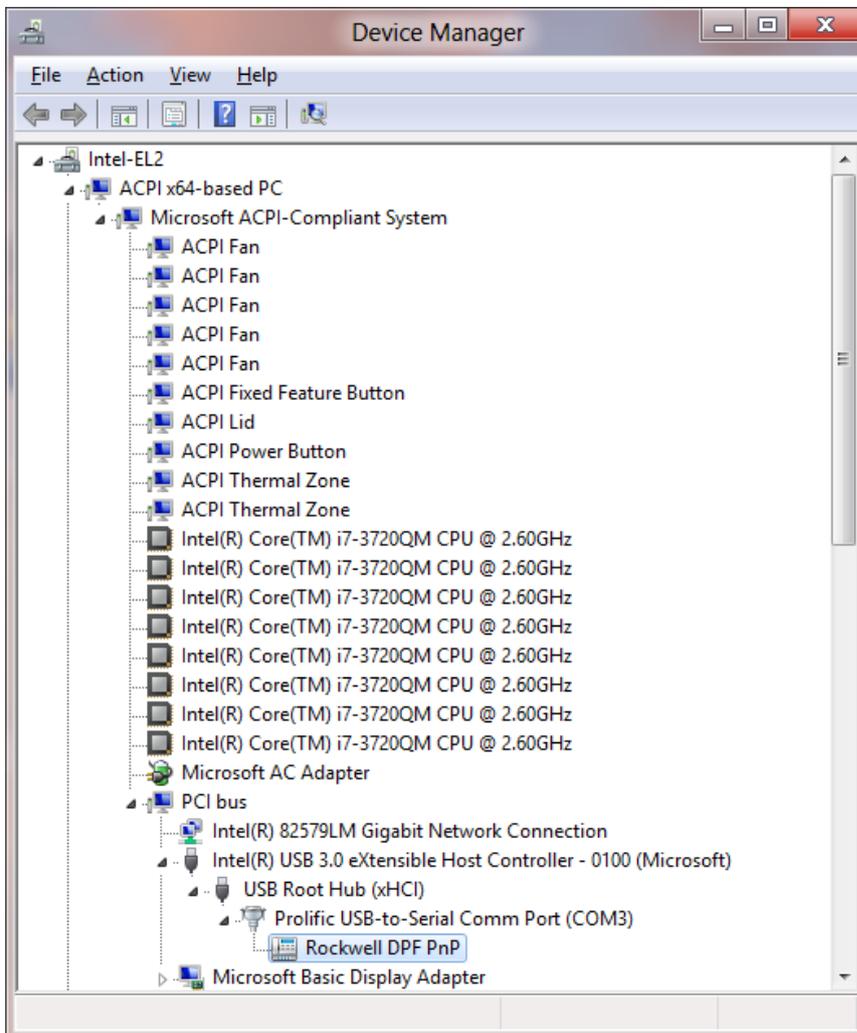
5.1 Windows 8 Compatibility

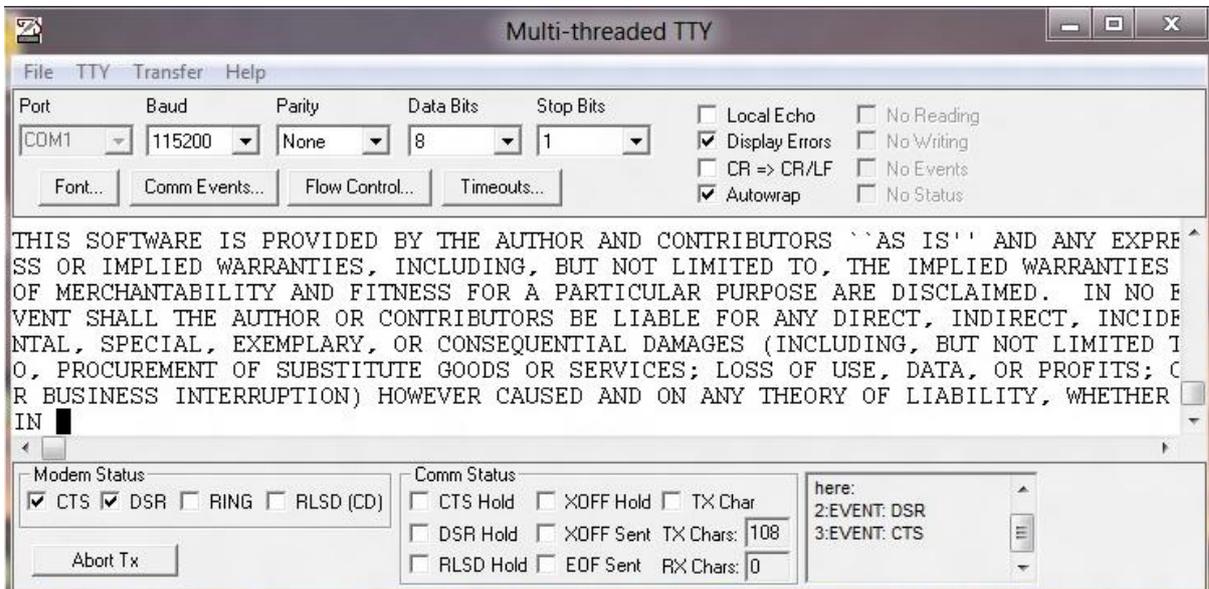
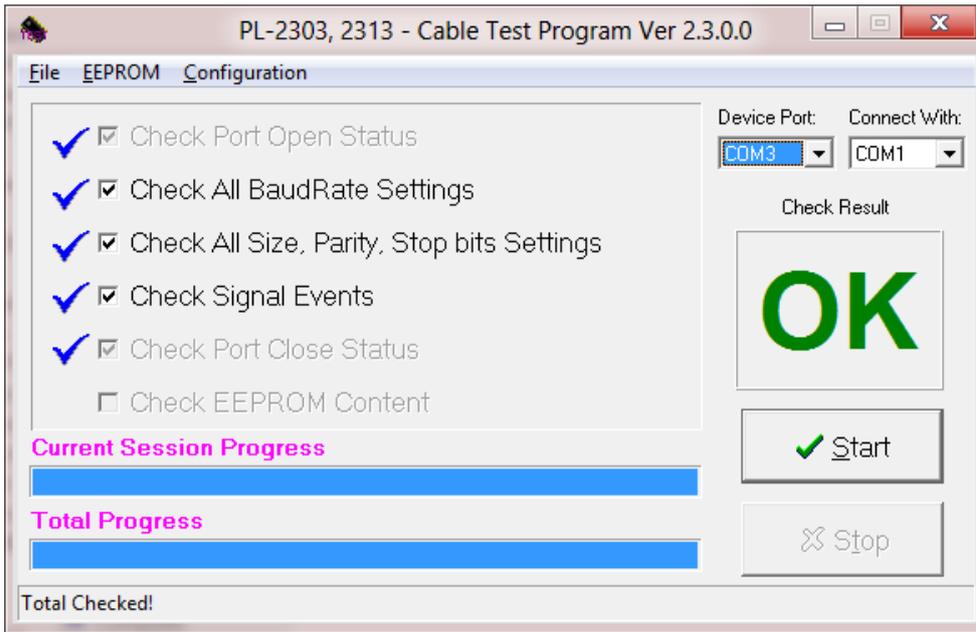
Test Environment #1	
System / Motherboard	Intel Emerald Lake 2 Chipset
CPU / RAM	Intel Corei7 3720QM @ 2.6GHz CPU / 2GB DDR3
USB Host Controller	Intel PantherPoint xHCI (USB 3.0)
OS	Windows 8 Consumer Preview 64-bit (Build 8250)
PL2303TA Driver	WHQL Driver Installer v1.6.0





Test Items	Test Descriptions	Results
Driver Install	Driver Install and Uninstall	PASS
Serial Modem + Function Test	Serial Modem Driver Installation	PASS
	Modem Query Diagnostic Test	PASS
	Hotplug 10X – Query Modem	PASS
	Change Topology – Plug to other USB Port	PASS
	HyperTerminal ATI3 command test (query modem)	PASS
	Sleep – Resume – Query Modem	PASS
	Hibernate S4 – Resume – Query Modem	PASS
	Reboot – Query Modem	PASS
	Shutdown – Cold Boot – Query Modem	PASS
	Dial-up 56K Modem and connect to Internet/FTP	PASS
Other Tests	Prolific Cable Test Program (connect to PC COM1)	PASS
	Transfer Files between PC COM1 and PL2303TA (MTTTY)	PASS





5.2 Windows 7 Compatibility

Test Environment	
System / Motherboard	Intel 7 Series/C216 Chipset (QM77 Express)
CPU / RAM	Intel Core CPU / 4GB RAM
USB Host Controller	Intel 7 Series xHCI (USB 3.0)
OS	Windows 7 SP1 Enterprise (64-bit)
PL2303TA Driver	WHQL Driver Installer v1.6.0

Test Items	Test Descriptions	Results
Driver Install	Driver Install and Uninstall	PASS
Serial Modem + Function Test	Serial Modem Driver Installation	PASS
	Modem Query Diagnostic Test	PASS
	Hotplug 10X – Query Modem	PASS
	Change Topology – Plug to other USB Port	PASS
	HyperTerminal ATI3 command test (query modem)	PASS
	Sleep S1 – Resume – Query Modem	PASS
	Standby S3 – Resume – Query Modem	PASS
	Hybrid Sleep – Resume – Query Modem	PASS
	Hibernate S4 – Resume – Query Modem	PASS
	Reboot – Query Modem	PASS
	Shutdown – Cold Boot – Query Modem	PASS
Other Tests	Dial-up 56K Modem and connect to Internet/FTP	PASS
	Prolific Cable Test Program (connect to PC COM1)	PASS
	Transfer Files between 2 Ports	PASS

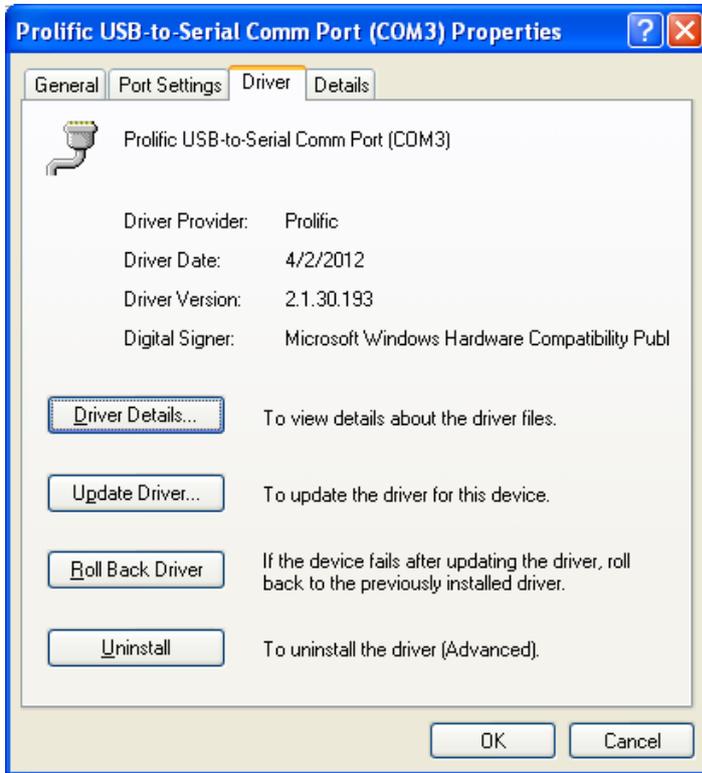
5.3 Windows Vista Compatibility

Test Environment	
System / Motherboard	DELL Dimension E520 Desktop
CPU / RAM	Intel Core2 Duo E6300 @1.86G / 1GB RAM
USB Host Controller	Intel ICH8 EHCI (USB 2.0)
OS	Windows Vista SP2 (64-bit)
PL2303TA Driver	WHQL Driver Installer v1.6.0

Test Items	Test Descriptions	Results
Driver Install	Driver Install and Uninstall	PASS
Serial Modem + Function Test	Serial Modem Driver Installation	PASS
	Modem Query Diagnostic Test	PASS
	Hotplug 10X – Query Modem	PASS
	Change Topology – Plug to other USB Port	PASS
	HyperTerminal ATi3 command test (query modem)	PASS
	Sleep S1 – Resume – Query Modem	PASS
	Standby S3 – Resume – Query Modem	PASS
	Hybrid Sleep – Resume – Query Modem	PASS
	Hibernate S4 – Resume – Query Modem	PASS
	Reboot – Query Modem	PASS
	Shutdown – Cold Boot – Query Modem	PASS
	Dial-up 56K Modem and connect to Internet/FTP	PASS
Other Tests	Prolific Cable Test Program (connect to PC COM1)	PASS
	Transfer Files between 2 Ports	PASS

5.4 Windows XP Compatibility

Test Environment	
System / Motherboard	IBM ThinkCentre A50 (Intel 865G Chipset)
CPU / RAM	Intel Pentium 4 / 1GB DDR
USB Host Controller	Intel ICH5 EHCI
OS	Windows XP SP3 (32-bit)
PL2303TA Driver	WHQL Driver Installer v1.6.0



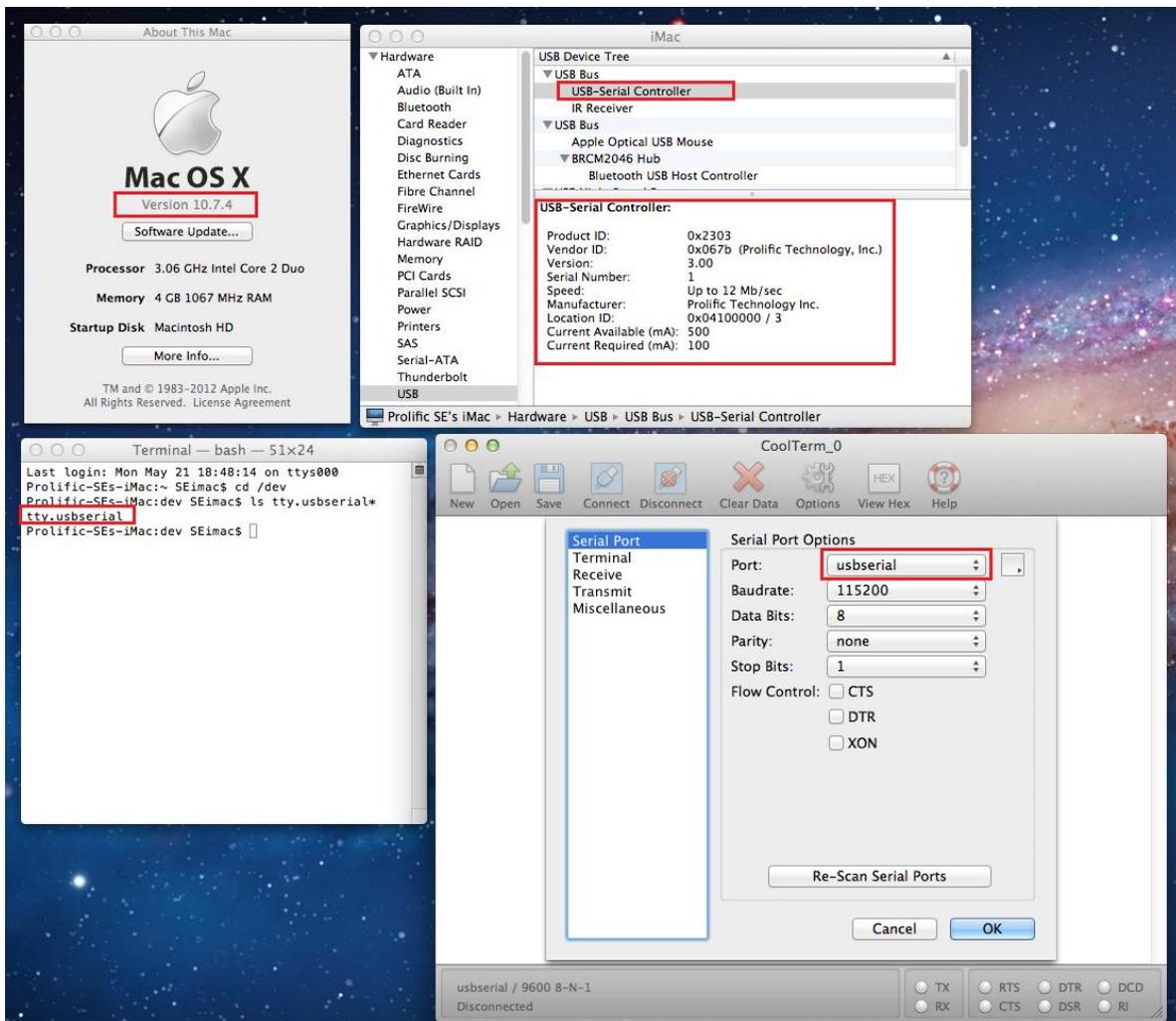
Test Items	Test Descriptions	Results
Driver Install	Driver Install and Uninstall	PASS
Serial Modem + Function Test	Serial Modem Driver Installation	PASS
	Modem Query Diagnostic Test	PASS
	Hotplug 10X – Query Modem	PASS
	Change Topology – Plug to other USB Port	PASS
	HyperTerminal ATI3 command test (query modem)	PASS
	Sleep S1 – Resume – Query Modem	PASS
	Standby S3 – Resume – Query Modem	PASS
	Hybrid Sleep – Resume – Query Modem	PASS
	Hibernate S4 – Resume – Query Modem	PASS
	Reboot – Query Modem	PASS
	Shutdown – Cold Boot – Query Modem	PASS
Other Tests	Dial-up 56K Modem and connect to Internet/FTP	PASS
	Prolific Cable Test Program (connect to PC COM1)	PASS
	Transfer Files between 2 Ports	PASS

6. Mac OS Compatibility Test

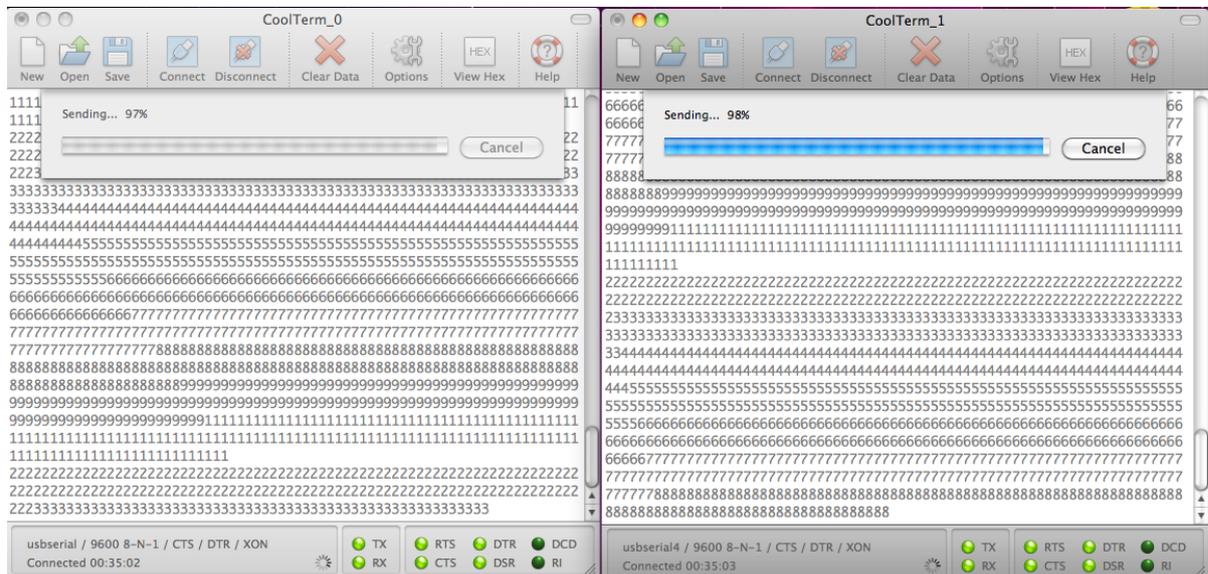
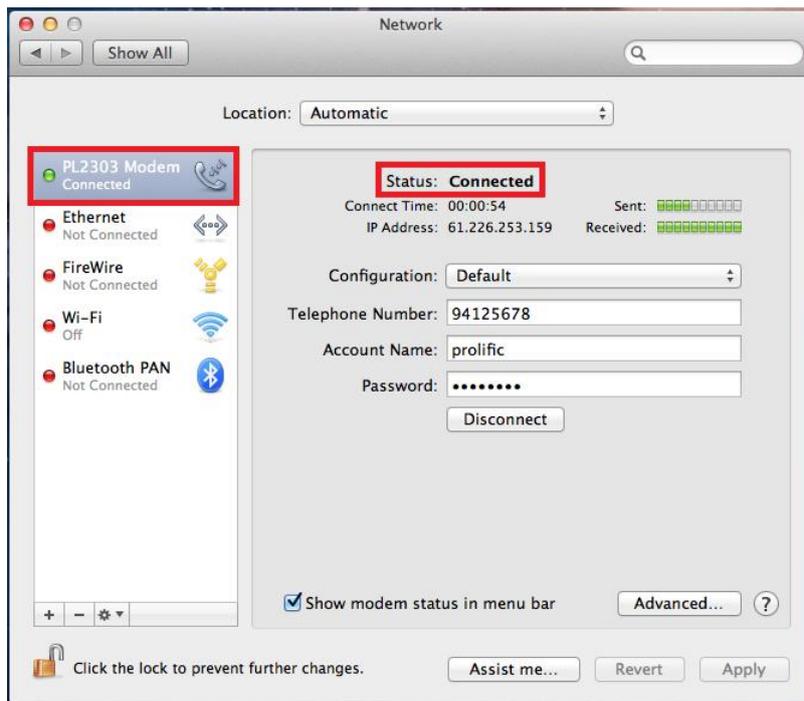
6.1 Mac OS Compatibility

Test Environment #1	
System / Motherboard	Apple iMac
CPU / RAM	Intel Core 2 Duo 2.1GHz / 1GB DDR2 RAM
USB Host Controller	Intel EHCI (USB 2.0)
OS	Mac OS X 10.7.4 (Lion)
PL2303TA Driver	PL-2303 Mac OS X Driver v1.4.0

Test Environment #2	
System / Motherboard	PowerMac G5 (USB 2.0)
CPU / RAM	PowerPC 1.6GHz CPU / 512MB
USB Host Controller	Mac OS 10.5.8
OS	Mac OS X 10.5.8 (Leopard)
PL2303TA Driver	PL-2303 Mac OS X Driver v1.4.0



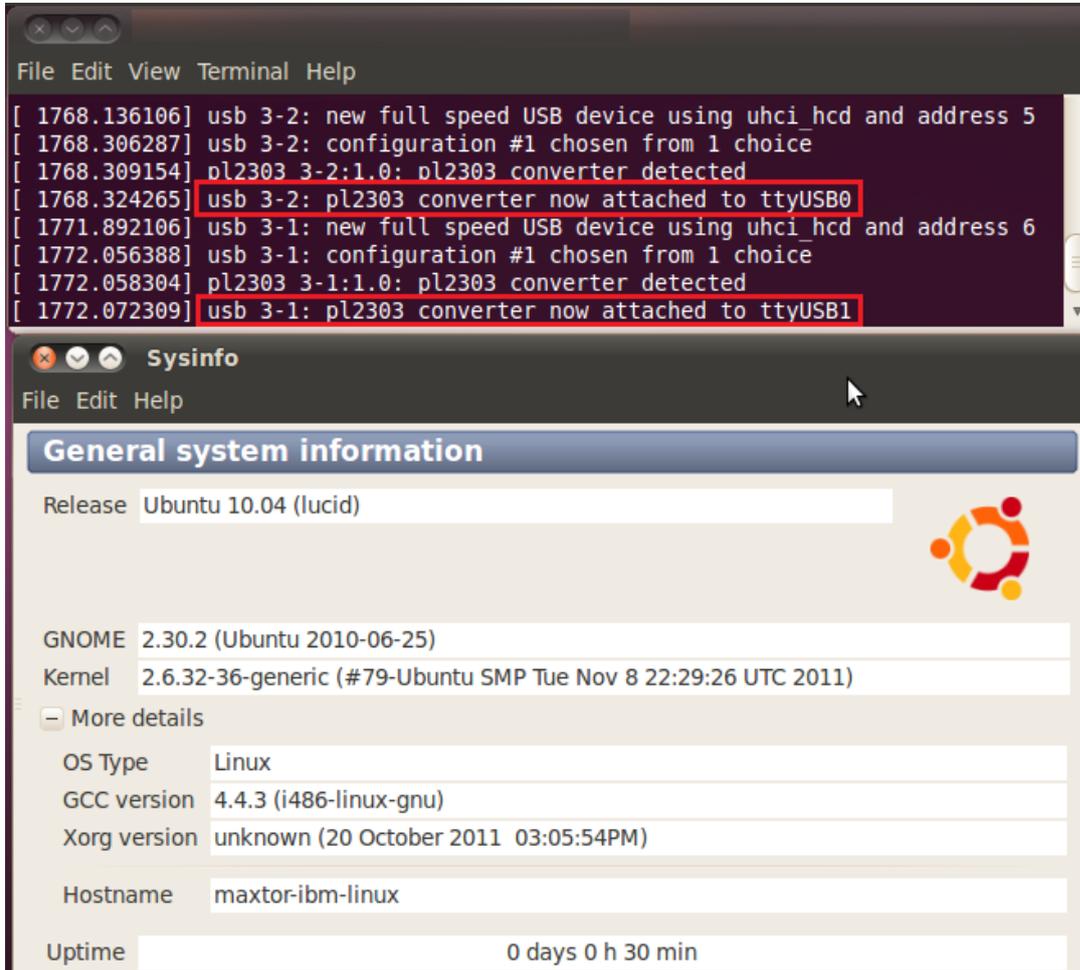
Test Items	Test Descriptions	Intel	PowerPC
Driver Install	Driver Install and Uninstall	PASS	PASS
Serial Modem + Function Test	Serial Modem Driver Installation	PASS	PASS
	Hotplug 10X	PASS	PASS
	Change Topology – Plug to other USB Port	PASS	PASS
	Standby – Resume – Query Modem	PASS	PASS
	Hibernate – Resume – Query Modem	PASS	PASS
	Reboot – Query Modem	PASS	PASS
	Shutdown – Cold Boot – Query Modem	PASS	PASS
Dial-up 56K Modem and connect to Internet/FTP	PASS	PASS	
2 x PL2303TA	CoolTerm (Transfer 1MB Text File between 2 Ports)	PASS	PASS



7. Linux OS & Host Compatibility Test

7.1 Linux Ubuntu Compatibility

Test Environment	
System / Motherboard	IBM ThinkCentre A50 / Intel 865G ICH5
CPU / RAM	Intel Pentium 4 2.8GHz / 1GB RAM
USB Host Controller	Intel ICH5 EHCI (USB 2.0)
OS	Ubuntu 10.04 (Kernel 2.6.32)
PL2303TA Driver	Built-in driver for Linux Kernel 2.4.31 and above



Test Items	Test Descriptions	Results
Device Install	Plug device - type "dmesg" – check for ttyUSB device.	PASS
2 x PL2303TA	Hotplug 10X – detect both COM Port and Serial Modem	PASS
	Change Topology – Plug to other USB Port	PASS
	Standby – Resume – Query Modem	PASS
	Hibernate S4 – Resume – Query Modem	PASS
	Reboot – Query Modem	PASS
	Shutdown – Cold Boot – Query Modem	PASS
	GtkTerm Serial Port Terminal program (Transfer File)	PASS

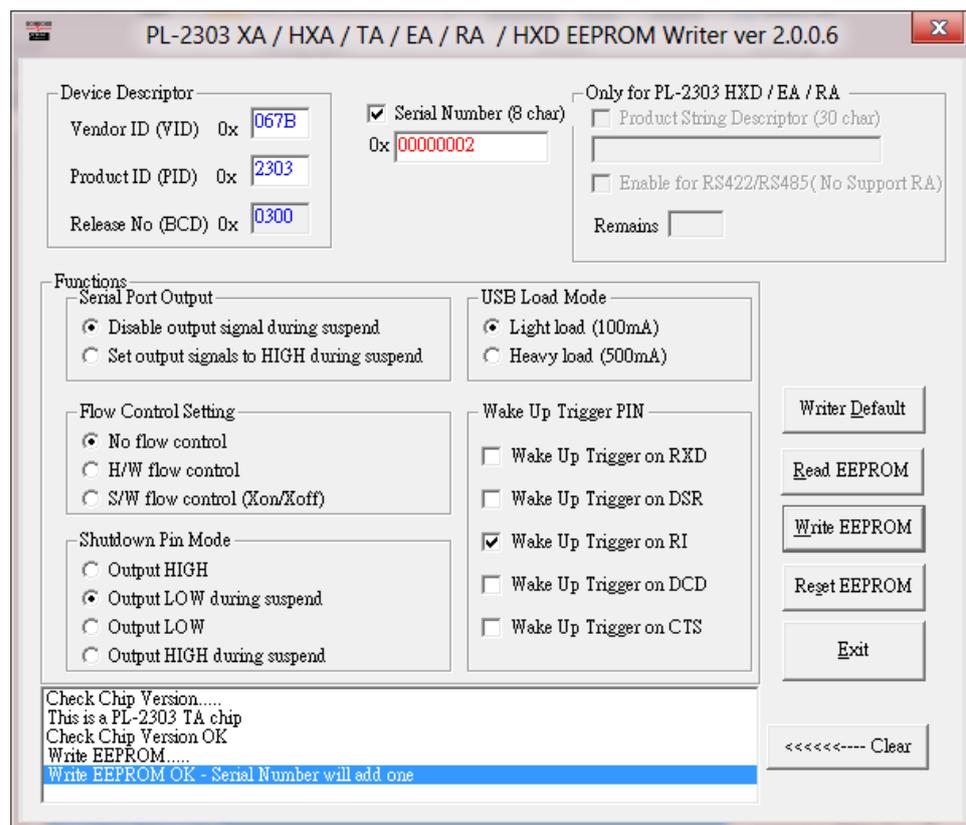
8. Serial EEPROM Compatibility

The PL2303TA also supports serial EEPROM to load customer specific configurations like USB Vendor/Product IDs, serial number, and other device configurations. Here is a list of serial EEPROM brands/model tested to be compatible for customer reference:

Test Criteria:

1. Put blank EEPROM. Should Read default ROM.
2. Write Customer VID/PID, Serial Number, Remote Wakeup.
3. Replug and install Customer Driver if OK. Use USBView.
4. Restart PC can read EEPROM and load driver is OK. Use USBView.
5. Read EEPROM.
6. Reset EEPROM to erase EEPROM contents.
7. Replug and should read default ROM (Prolific VID/PID).

No.	Tested Serial EEPROM	Results
1	ST 24C02N	PASS
2	ATMEL 24C02N	PASS
3	Micro FT24C02	PASS
4	CAT24C02N	PASS
5	Holtek HT242C02	PASS
6	K-Line K24C02B	PASS
7	ATMEL AT24C02B	PASS
8	CSI 24WC02	PASS
9	APlus AF24BC02	PASS



9. Baud Rate Compatibility

The PL2303TA can support up to 6Mbps baud rate. Each driver supported baud rate (default) is tested as follows:

Test Criteria:

1. Plug two PL2303TA and interconnect using [serial null modem cable](#).
2. Use modified MTTY program to support baud rate table.
3. Set default driver supported baud rate and press keyboard to send/receive characters.

No.	Baud Rate Tested (bps)	Results	No.	Baud Rate Tested (bps)	Results
1	6000000	PASS	19	56000	PASS
2	3000000	PASS	20	38400	PASS
3	2457600	PASS	21	28800	PASS
4	1228800	PASS	22	19200	PASS
5	921600	PASS	23	14400	PASS
6	806400	PASS	24	9600	PASS
7	614400	PASS	25	7200	PASS
8	460800	PASS	26	4800	PASS
9	403200	PASS	27	3600	PASS
10	268800	PASS	28	2400	PASS
11	256000	PASS	29	1800	PASS
12	230400	PASS	30	1200	PASS
13	201600	PASS	31	600	PASS
14	161280	PASS	32	300	PASS
15	134400	PASS	33	150	PASS
16	128000	PASS	34	110	PASS
17	115200	PASS	35	75	PASS
18	57600	PASS			

NOTE: For above 1Mbps baud rate test, no transceiver is used and jumper wire TX-RX pins and vice-versa.

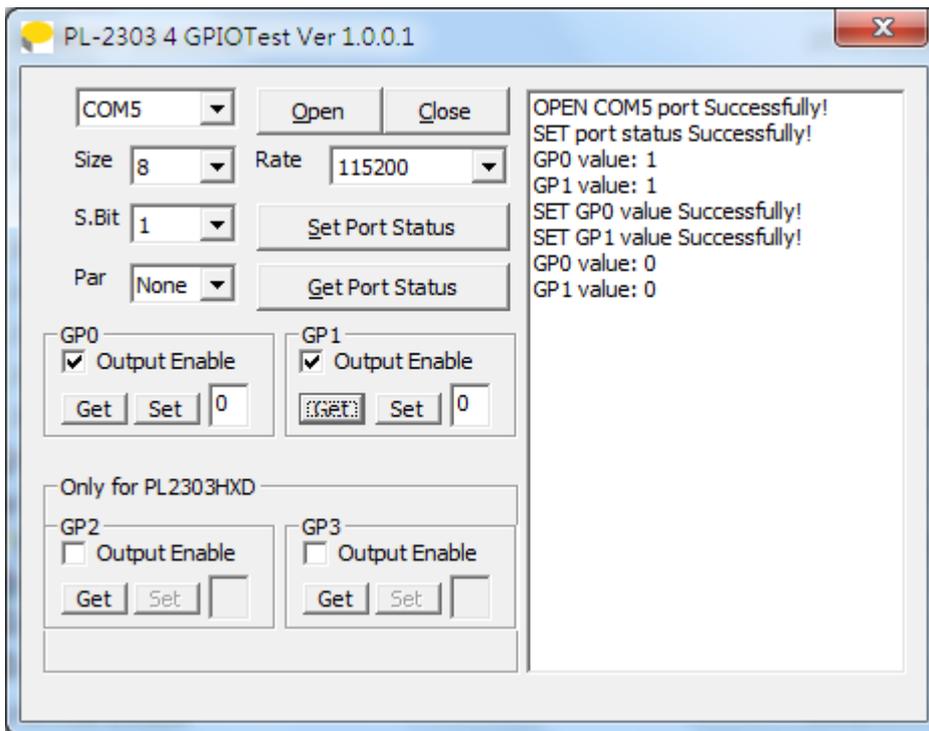


10. GPIO Control Test

The PL2303TA supports 2 GPIO control pins. Prolific provides a sample GPIO Test program and program source code for customer test and reference.

10.1 Prolific GPIO Test Program

Test Environment	
System / Motherboard	HP 6530b
CPU / RAM	Intel Core2 Duo P8700 @ 2.5GHz CPU / 2GB RAM
USB Host Controller	Intel 4 Series ICH9 EHCI
OS	Windows 7 Professional SP1 32-bit
PL2303TA Driver	WHQL Driver Installer v1.6.0
Test Program	Prolific GPIO Test Program v1.0.0.1



Test Items	Test Descriptions	Results
GP0_LED	Set GP0 to 0 (Output Enable) to turn on LED; Get GP0 value.	PASS
GP1_LED	Set GP1 to 0 (Output Enable) to turn on LED; Get GP1 value.	PASS

11. Stress Test

11.1 Passmark BurnIn Test: Serial Port + Reboot Test 500X

Test Environment

System / Motherboard	Gigabyte GA-7VM400AM Motherboard
CPU / RAM	AMD Athlon XP2800 @2.08G / 512MB RAM
USB Host Controller	VIA KM400A, VT8237 EHCI (USB 2.0) + Belkin USB 2.0 Hub
OS	Windows XP SP3

BurnInTest V4.0 Pro - [Live Results]

File Edit View Configuration Test Help

BurnInTest V4.0 Pro - Result Sheet

Machine Name: SE-VIA-PC Config file: LastUsed.cfg
 CPU Manufacturer: AuthenticAMD CPU Type: AMD Athlon(tm) XP 2800+
 CPU Speed: 2077.0 MHz
 Start time: Wed Dec 28 14:40:24 2011 Stop time: -
 Duration: 000h 00m 15s
 Temperature: (Min / Current / Max)

Test Name	Cycle	Operations	Errors	Last Error Description
Serial Port 3	0	17300	0	No errors

Notes:

BurnInTest - Serial Port Test

Serial Port: COM3
 Speed: 9600 bits/sec
 Bytes sent: 9300
 Bytes received: 9300
 Errors: 0
 Throughput: 709.2 Bytes/sec



Ready

PassMark Rebooter - Configuration Mode

Reboot options

Maximum reboots: 1000
 Reboot counter: 502 [Clear]
 Reboot type: Reboot [v]
 Force shutdown: Ask to close [v]
 Delay: 5 Sec

Auto-login

Auto-login is currently ENABLED

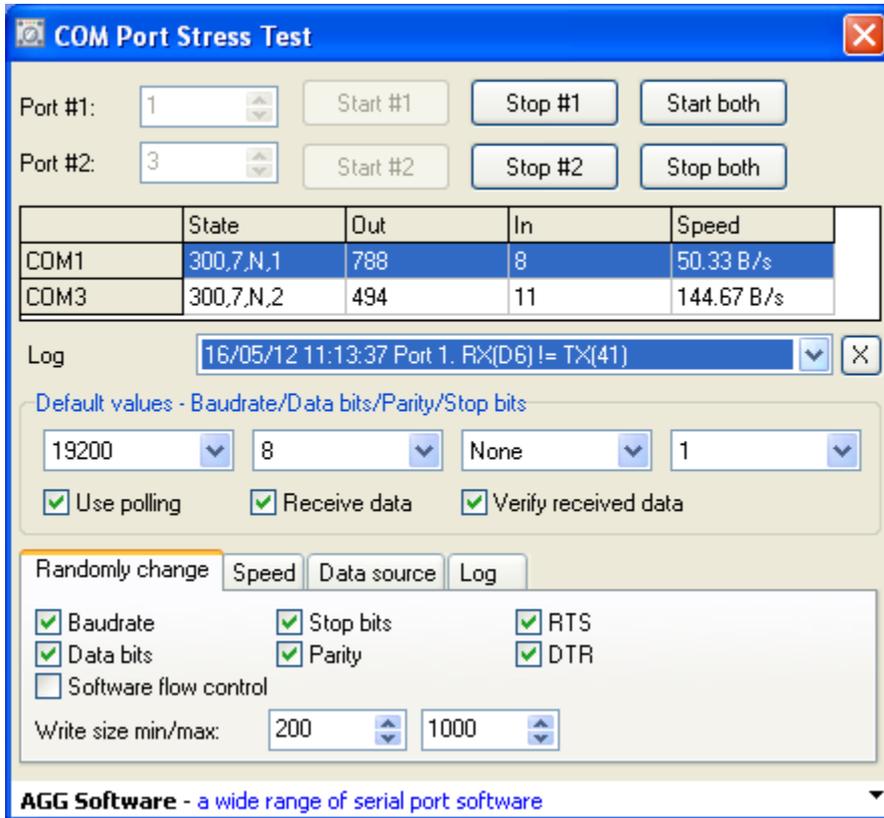
Domain: SE-VIA-PC
 User Name: SEVIA
 Password: []

Buttons: Save options, Reboot Now, Set Auto-login, Disable Auto-login, Close, About, Help

Test Descriptions	Results
BurnInTest Serial Port Loopback Test (9600bps) + Reboot Test > 500X	PASS

11.2 COMPort Stress Test

Test Environment	
System / Motherboard	IBM ThinkCentre A50 (Intel 865G Chipset)
CPU / RAM	Intel Pentium 4 @2.8GHz
USB Host Controller	Intel ICH5 EHCI
OS	Windows XP SP3 x86
Serial Port Test Program	COM Port Stress Test (Overnight Test)



Test Items	Test Descriptions	Results
PC (COM1) & PL2303TA(COM3)	Randomly Change Baud Rate, Data Bits, Stop Bits, Parity with RTS Flow Control (Overnight Test)	PASS