

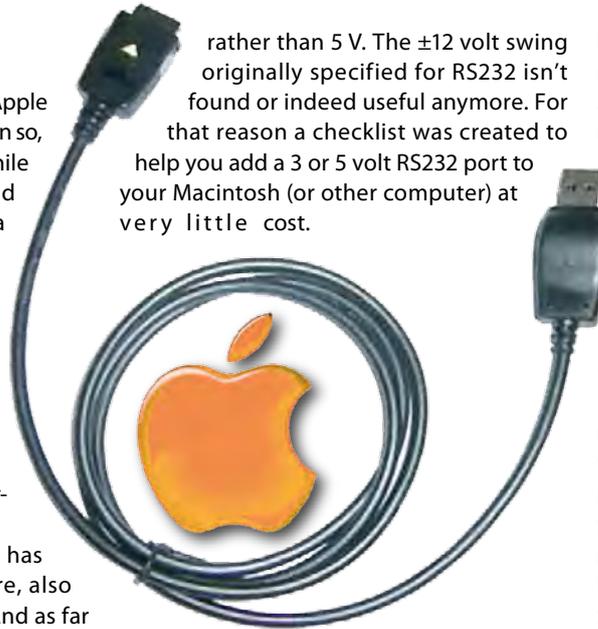
Cheap Serial Port for the Mac



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Many people would agree that the Apple Macintosh is a fantastic computer. Even so, it's been less popular for a good while amongst electronics engineers and enthusiasts. Of course there was a good reason for this: Apple was one of the first companies that left out the ever so useful RS232 port. And not only on their notebooks (sorry, MacBooks), they also left them out from their desktop computers. It's been a good 10 years since Apple started delivering those beautiful, futuristic iMacs in a range of colours, but unfortunately without an RS232 port. However, times change and Apple has steadily increased its market share, also amongst electronics enthusiasts. And as far as 'the other brands' are concerned, there is virtually no laptop made nowadays that does come with an RS232 port. The RS232 port is still considered very useful by many electronics-minded people though. These days microcontroller circuits that employ ersatz-RS232 often work at 3 V

rather than 5 V. The ± 12 volt swing originally specified for RS232 isn't found or indeed useful anymore. For that reason a checklist was created to help you add a 3 or 5 volt RS232 port to your Macintosh (or other computer) at very little cost.



1. Buy a GSM USB cable from a shop or via the Internet from Hong Kong; it shouldn't cost a lot.
2. Look at [2] for the pinout of the plug. It will tell you what connections are used by RS232 and what the operating voltage is. This will

- be 3 volts for most modern telephones; for older models it is usually 5 volts.
3. You will usually get some software for Windows with the cable — if you can use it you're done. Congratulations!
4. Mac users have to do a bit more work though. Connect the cable to the computer and have a look in the System Profiler (Applications/Utilities) under Hardware/USB to see what type of interface it is.

As an example, you could see the following:

usb data cable:

Version:	1.00
Bus Power (mA):	500
Speed:	Up to 12 Mb/sec
Manufacturer:	Silicon Labs
Product ID:	0x10c5
Serial Number:	0001
Vendor ID:	0x10ab

5. You can see from this that you have a 'Silicon Labs' interface. From the website of this company [1] you download the CP210x USB to UART Bridge Virtual COM Port (VCP) driver for Mac OS X.

6. The driver is installed by double-clicking on the SLAB_USBtoUART Installer.

7. Unfortunately, the standard Product and Vendor ID of this driver do not correspond with those of the GSM cable, but that is easily rectified. The Product and Vendor ID that discovered in step 4 can be included in the file: `/System/Library/Extensions/SLAB_USBtoUART.kext/Contents/Info.plist`. All that's left to do is to type a few instructions to load the driver.

8. Open a terminal session and type:

```
$ sudo kextload /System/Library/Extensions/  
SLAB_USBtoUART.kext  
$ touch /System/Library/Extensions  
$ ls -al /dev/tty.SLAB*
```

If all went well you should see something like this:

```
crw-rw-rw- 1 root wheel 9, 8 Oct 18 08:32 /dev/
```

```
tty.SLAB_USBtoUART
```

as proof that the new COM port is available.

(090092-1)

Internet Links

[1] www.silabs.com

[2] <http://pinouts.ru>