

# LTE POTSwap™ Firmware Loading Instructions

## Overview

The LTE POTSwap operates on firmware that can be updated in order to incorporate new features or address operating issues. New firmware can be loaded via a connection to the POTSwap's CONFIG port (USB mini connector). The firmware upgrade procedure is accomplished using a terminal emulation program running on a personal computer (PC) and transferring the firmware using the Xmodem protocol.

## Requirements:

- LTE POTSwap
- USB-to-mini USB cable
- PC running Windows, loaded with:
  - SiLabs CP210x USB to UART Bridge driver for the POTSwap USB CONFIG port.
  - Terminal emulation program with Xmodem-1K file transfer support.
  - POTSwap binary file. Available for download on the Janus website.  
(File name takes the form 'POTSWAP3-LTE-yymmdd-RCn.bin')

The SiLabs CP210x USB to UART Bridge driver may be automatically installed by the Windows operating system when the POTSwap is connected to a PC with internet access.

The driver is also available from Silicon Laboratories at:

[www.silabs.com/developers/usb-to-uart-bridge-vcp-drivers](http://www.silabs.com/developers/usb-to-uart-bridge-vcp-drivers)

At the above web page, select the 'Downloads' tab and download the "CP210x Windows Drivers" package.

Extract the files and run the appropriate installation package:

"CP210xVCPInstaller\_x86.exe" for legacy 32 bit systems

"CP210xVCPInstaller\_x64.exe" for 64 bit systems

The terminal emulation program must have the ability to send a binary file using the XMODEM-1K protocol. Acceptable programs include:

- ExtraPuTTY - A PuTTY variant that includes support for the XMODEM-1K file transfer protocol.
- Terra Term - An open source terminal emulator.
- HyperTerminal - Included on Windows XP and earlier Windows operating systems.

This Application Note uses the ExtraPuTTY program to demonstrate the POTSwap firmware loading procedure.

ExtraPutty can be downloaded from:

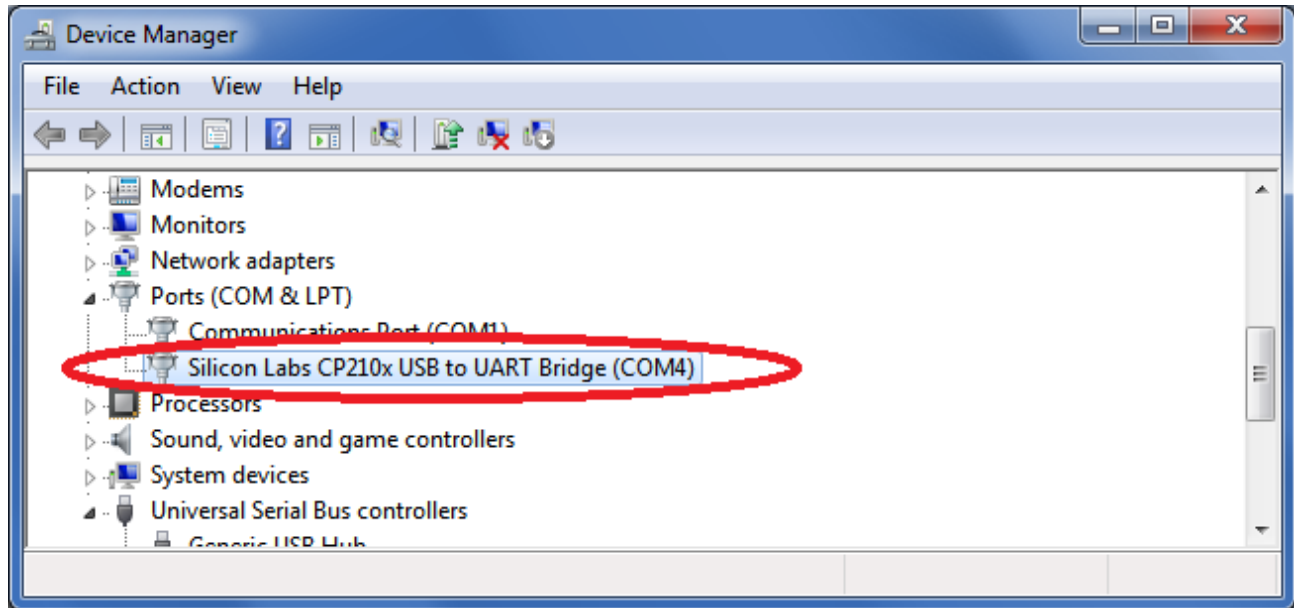
[www.sourceforge.net/projects/extraputty/](http://www.sourceforge.net/projects/extraputty/)

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## Procedure:

This procedure demonstrates LTE POTSwap firmware loading using the ExtraPutty application.

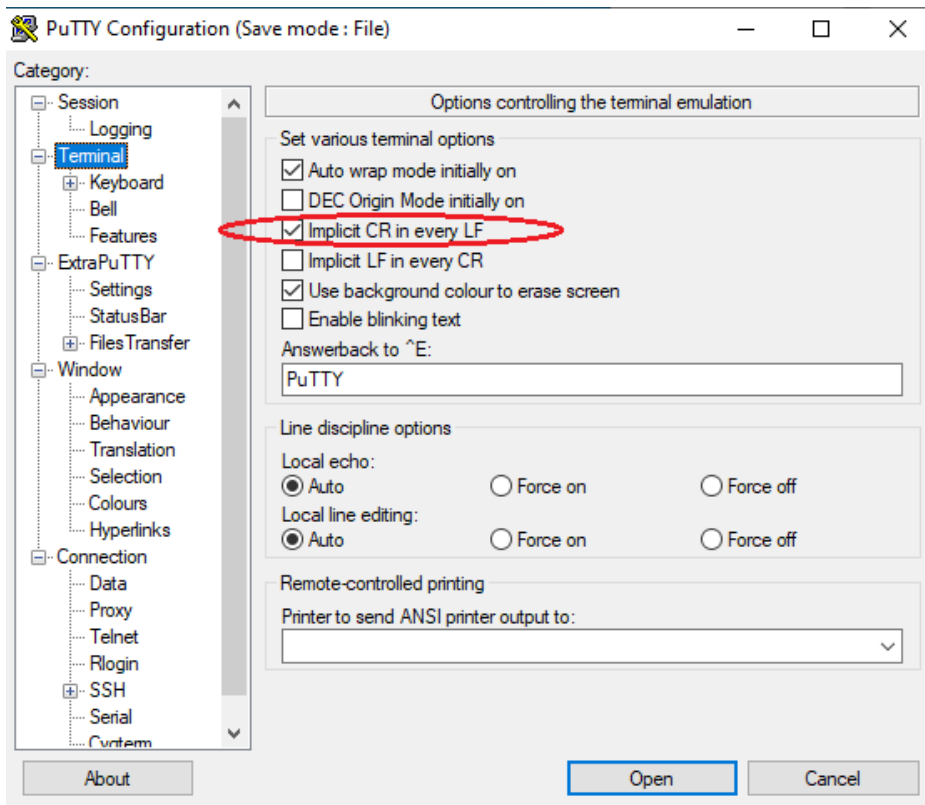
With the POTSwap powered on connected via the USB CONFIG port, use the Windows Device Manager to determine the COM port that the POTSwap is using:



### Open ExtraPutty.

On the configuration page, select "Terminal" under the Category list.

Check the box for "Implicit CR in every LF"



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## Procedure continued

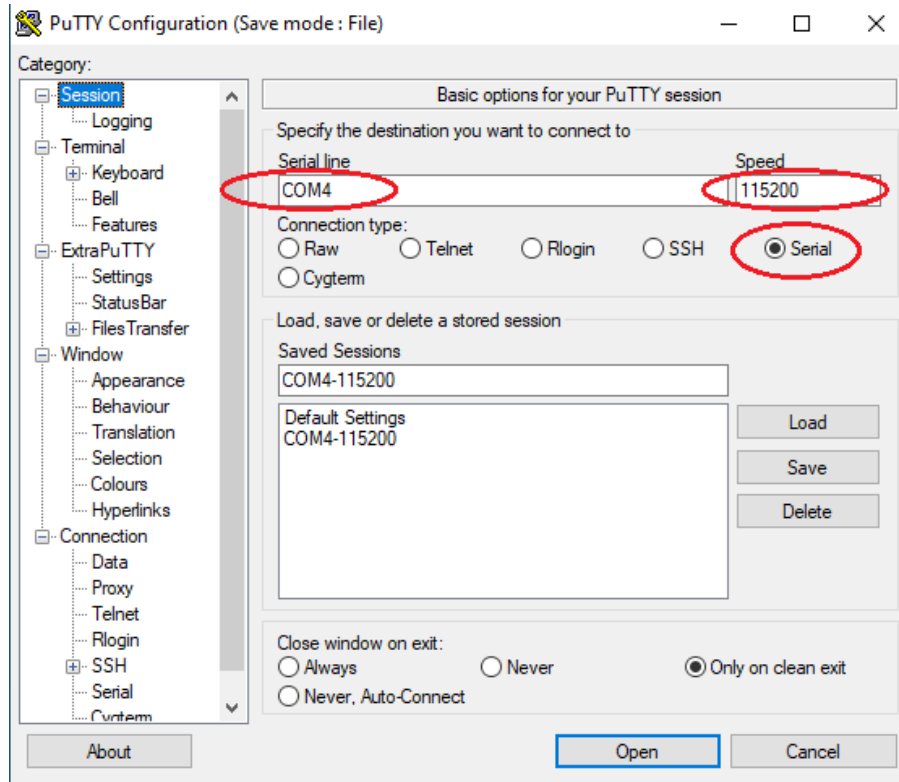
On the configuration page, select "Session" under the Category list.

Set Connection Type to Serial

Set the Serial line to the COM port determined by Device Manager.

Set the Speed to 115200

It is suggested to give these settings a name and save them.



Start the terminal emulator program.

Power the POTSwap, or use the reset push button to re-start it.

The POTSwap will output diagnostic information for about 30 seconds, at the end of which the following is output:

```
WireLine III Board - POTSwap [version]
Entering Terminal Mode, 10 seconds to type first command
Type ? for help, Q to exit
FW: hh:mm:ss MMM DD YYYY
READY
```

You have 10 seconds to enter a "?" character followed by the "Enter" key. (Otherwise it proceeds to begin normal operation.)

The POTSwap will respond with:

```
Terminal Mode Help - USART1 Debug Port (WLR) hh:mm:ss MMM DD YYYY
?, H This help page
Q, QUIT Exit Terminal Mode
XMODEM Download upgrade binary
UPDATE Update Application
REBOOT Restart Application
CONFIG Configure Settings
IDENTIFY Display PHONE#/IMEI/MEID
APN Context Access Point Name
READY - Stack:nnnn
```

