

# Using ModemUSB with Linux

ModemUSB uses FTDI USB-to-Serial converter. Support for FTDI serial converters was added to Linux kernels from version 2.6.9 in 2.6 series and from version 2.4.20 in 2.4 series. If driver is compiled as a loadable kernel module,

it's name is `ftdi_sio`. Most up-to-date distributions should install `ftdi_sio` module by default. However if your distribution doesn't ship `ftdi_sio` module nor have it compiled into the kernel, you can compile custom kernel. To include FTDI serial converters support, you should set kernel configuration option `CONFIG_USB_SERIAL_FTDI_SIO=y` to compile FTDI support into the kernel, or `CONFIG_USB_SERIAL_FTDI_SIO=m` to compile `ftdi_sio` kernel module.

## Installation

After plugging ModemUSB in, linux kernel should recognize the serial converter device.

To make sure device is recognized, type the command `'dmesg | tail'` in the console. There should be line similar to this

in the command output:

```
usb 2-1: FTDI FT232BM Compatible converter now attached to ttyUSB0.
```

If device is not detected, you can try to load the driver manually. To do it, login as root user and in the console execute

```
command '/sbin/modprobe ftdi_sio'.
```

When the kernel recognizes the device, it creates a serial port device node, usually it is `/dev/ttyUSB0`.

*Note:* if you are using 2.6 series kernel with `udev`, you can configure `udev` to always assign the same device node name

to ModemUSB. See `udev` documentation for instructions.

*Note:* PIN code request should be turned off in the SIM card. If it is turned on, you have to enter correct pin after modem is plugged in. PIN code can be entered by using `'gsmctl'` command from `'gsm-lib'` package (`gsmctl -d /dev/ttyUSB0 -o pin 1234`, where 1234 is your pin code).

After serial port device node is created, you can use your favorite tool to configure internet PPP connection.

## GPRS

To be able to use GPRS, you should configure your dialer to initialize the modem with following init strings (replace

'your.apn.here' with appropriate APN):

```
ATZ
```

```
AT&FV1&D2&S0&C1S0=0
```

```
AT+CGDCONT=1,"IP","your.apn.here"
```

PPP Internet connection can be established by dialing to the phone number `'*99#'`.

## Example

To connect to the internet over GPRS using `wvdial` dialer you can use the following configuration file (`/etc/wvdial.conf`):

```
[Dialer Defaults]
```

```
Modem = /dev/ttyUSB0
```

```
Baud = 230400
```

```
Init = ATZ
```

```
Init2 = AT&FV1&D2&S0&C1S0=0
```

```
NAWRAS
```

```
Login = yourlogin
```

```
Password = yourpassword
```

```
[Dialer gprs]
```

```
Phone = *99#
```

```
Init3 = AT+CGDCONT=1,"IP","your.apn.here"
```

*Note:* You need to replace 'yourlogin', 'yourpassword' and 'your.apn.here' with values appropriate for your GSM operator

For complete configuration file syntax, see `wvdial.conf(5)` man page.

To connect to the internet, you should run the command `'wvdial --config /etc/wvdial.conf gprs'`. Your user should have

permissions to access the modem device (usually `/dev/ttyUSB0`).