SINTRONES
In-Vehicle Computing

General Information:

CANUSB is a very small dongle that plugs into any PC USB Port and gives an instant CAN connectivity. This means it can be treated by software as a standard COM Port (virtual serial RS232 port) with the FTDI USB drivers which eliminates the need for any extra drivers (DLL) or by installing a direct driver DLL (D2XX) together with our CANUSB DLL for faster communications and higher CAN bus loads. Sending and receiving can be done in standard ASCII format.

Specifications:

- Can handle up to 1Mbit/s CAN bitrate
- Industrial Temp range -40C to +85C
- USB 2.0 Full Speed, uses FTDI FT245RL
- Philips SJA1000 CAN Controller running at 16Mhz
- Philips 82C251 CAN Tranceiver (ISO 11898-24V)
- Compliant to CAN 2.0A (11bit ID) & CAN 2.0B (29bit ID)
- Supports RTR frames
- 32 CAN frames deep FIFO buffer for incomming frames
- Time Stamp (optional) in mS for incomming frames
- CAN connection according to CiA DS102-1 standard
- Power supplied via USB
- Free Interface DLL (32 & 64bit) or low level Ascii Commands API
- Free Windows USB driver available (32 & 64bit)
- Free Linux USB driver available
- Free MacOS USB driver available
- Green LED for CAN activity
- Red LED for CAN error activity
- Firmware updatable via USB
- CE Approved
- RoHS & WEEE Compliant

Features:

The module plugs directly into a standard USB port and provides a standard DB9 male output to CAN systems according to CiA (CAN in Automation) DS102-1 recommendations. It is self powered from USB. It consumes max 100mA, but normally not more than 60mA (this depends on BUS load and eventual CAN cable errors etc.). Use your own RS232 LIB/drivers (in e.g. Visual Basic, Deplhi, C++ etc.) together with the free Virtual COM port driver or use the free Direct driver DLL (see Download page for drivers). Works on Windows, MacOS and Linux platforms. Easy to migrate from CAN232 to CANUSB with some small software changes. Free Windows Threaded CANUSB API DLL, write applications in a snap.

CAN Pin assignement:
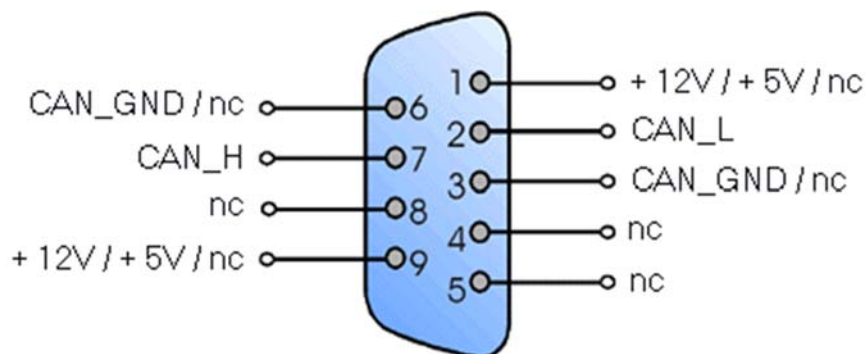
Pin assignement according to CiA recommendations DS102-1.
The CANUSB is powered from USB port, so no need to connect external
power on pin 9. Use only CAN_L (pin2), CAN_H (Pin7) and CAN_GND (pin3).

Sample Programs and Drivers:

Sample programs in C, C++, C#, Visual Basic 6, Delphi, Linux etc. can be found on the download page.

CANUSB uses FTDI USB chip FT245RL and we have developed our own DLL which in turn interfaces with the D2XX DLL from FTDI. This threaded DLL includes Open, Close, Read, Write & Status functions and will make it quick and easy for customers to make their own applications in a snap without understanding on how to parse commands and get into how the D2XX driver work. Tests with VB6 using this DLL shows that the CANUSB is fast and can receive 5000+ frames per second without loosing any frames. However due to the Windows USB driver 1mS time slot (gitter) you cannot send more than about 1000 messages per second, since the CANUSB needs to report back (this apply to sending & receiving, i.e. ping pong messages).

CANUSB ASCII Command Manual:

Only usefull if you plan to make your own driver package and not use our CANUSB DLL for Windows. This manual is also usefull for Linux and MacOS development.

CANUSB Manual

The commands in this manual is not needed if you choose to use the LAWICEL CANUSB DLL for Windows. The ASCII manual is here for reference only or if you prefer to write your own driver or use an operating system where we do not have a driver for such as Linux, MacOS etc. Though we recomend that you download it and read the first part of the manual so you understand how it works.