

PC Interface for managing CMUX data 05/09/07





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1.1 Overview

Aim of this document is the handling description of the USB UART FTDI Drivers Installation on *EVK2*. All given information should be updated or changed depending from USB UART manufacturer information.

1.2 Serial interface

The following figure shows the architecture of the serial ports.

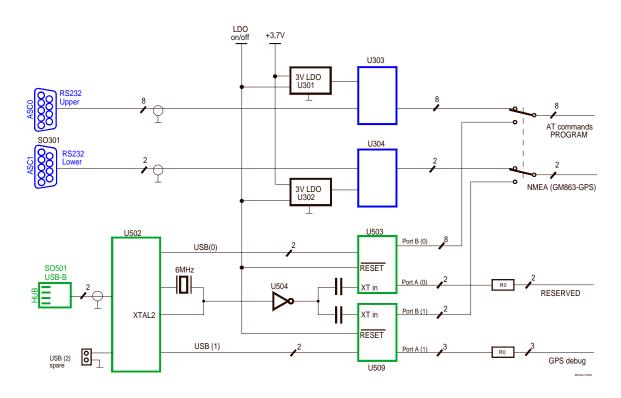


Figure 1.Serial ports block diagram

1.2.1 Mode Setup

Communications between your application and the Telit modules are allowed connecting the DTE to the *Asynchronous Serial Interfaces* of Base-Band Chip, ASC0 and ASC1, through the *stacked standard RS232 communications port (double 9way D-socket connector* at slow data rates of *RS232 protocol)* or a *standard USB-B Series receptacle* (at higher data rates of *USB1.1 specification* through a *CMOS HUB* that realizes a multiple attachment point device).





To make the *USB 1.1 mode* active you must short *PL302&PL301* by 10 pieces of *2 contacts jumpers*. This solution has been implemented because every line could be isolated independently.

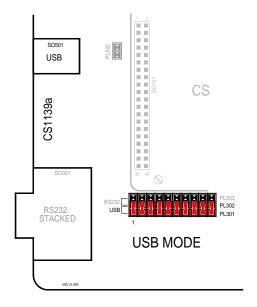


Figure 2. USB mode setting.

1.3 USB Drivers

All drivers, documents and procedures can be found on CDROM or, when manufacturer will give the communication, downloadable from FTDI website .

Theses FTDI devices require installation of the *Virtual COM port (VCP)* drivers, by which a standard PC COM port is emulated, allowing the communications in the same way as any other COM port on the PC.

On the enclosed CD-Rom you find the file *Drivers.zip* containing the drivers to be used under Windows2000 or WindowsXP. For others OS, please download the right drivers from FTDI website:

http://www.ftdichip.com





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1.3.1 Installation

- → First, uninstall any previous installed driver:
 - use the Uninstaller utility in Add/Remove Programs to remove all FTDI drivers
 - launch the FTclean.exe utility, downloadable from http://www.ftdichip.com/Resources/Utilities.htm
- → Second, unzip the file *Drivers.zip* in a folder on your PC: the following figure shows the result.

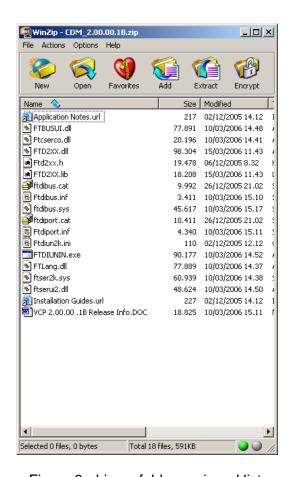


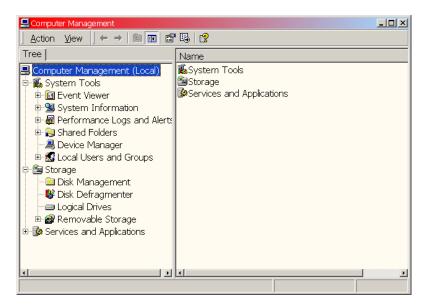
Figure 3: drivers folder unzipped list.

- → Click once on *My Computer* Desktop icon (right mouse button).
- → Click once on MANAGE (left mouse button) in the next menu: a *Computer Management* window will open.





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→ Connect a USB-A USB-B cable between your EVK 2 and a spare USB port on your PC, without turning on the power supply of EVK2: automatically the OS will recognize the new HUB.

You can verify this clicking in sequence:

- On **Device Manager** in the left window (left mouse button)
- On Ports (COM& LPT) menu of the Device Manager to open it (left mouse button)
- On *Universal Serial Bus Controller* menu to open it (left mouse button).

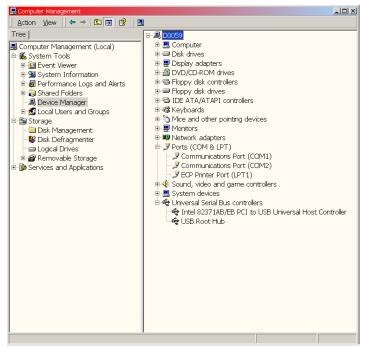


Figure 4: Initial *Device Manager* window





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→ Turn on the power supply of EVK2: this will launch the Windows Found New Hardware Wizard



→ Click on Next

Under WindowsXP, tick on "Install from a list or specific location (Advanced) "



Tick on "Search for a suitable driver for my device (recommended)"

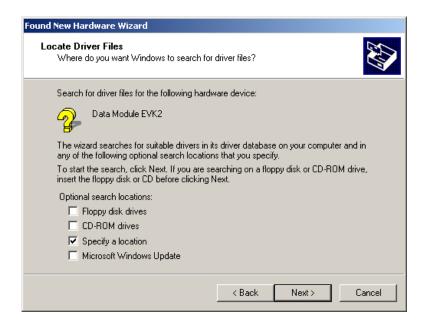
Under WindowsXP, select "Don't search. I will choose the driver to install"; if a warning appears, click on "Continue Anyway" to continue with the installation.





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→ Click on **Next** button



→Tick only "Specify a location"

Under WindowsXP, select "Don't search. I will choose the driver to install". If a warning appears, click on "Continue Anyway" to continue with the installation.

→ Click on **Next** button.

Under WindowsXP, Click on Next (Hardware Type)



→Click on **OK** button if you accept the path suggested.





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- → Type the path to the folder in which you have unzipped the *Drivers.zip* file if the path proposed is not the right one (or click on *BROWSE* button to search for it).
- → Click on **OK** button.

The PC will search the right file in the manufacturer's files folder, asking for a new confirm



→ Click on **OK** button.

OS will continue with driver installation.

Under WindowsXP, even if the window wizard is different, do the same choices. **REMEMBER:** if the OS offers a choice to install newer versions, never accept it.

OS should then display a message indicating that the installation was successful.



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→ Click on FINISH button

Depending on OS (Win2K or WinXP), other driver installation sequences will start; follows this method till the end of installation process.

1.3.2 D2XX file update

It is mandatory to copy the file *FTD2XX.dll* from *manufacturer's drivers folder* to the *system32 directory* to update it without invalidating WHQL certification.



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1.3.3 New COMport list

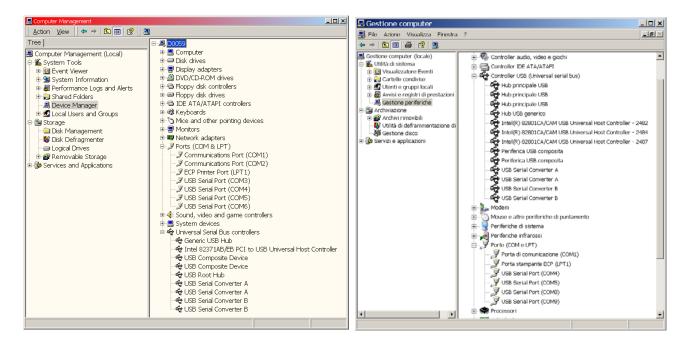


Figure 5. Final result under *Windows2000* (at left) and *WindowsXP* (at right).

On **Device Manager** window you will see the new COMports and drivers installed.

- a) under **Ports (COM & LPT)** you will see 4 new **USB Serial Ports**, with theirs identifiers automatically chosen by OS; in the figure 5:
 - **USB Serial Port** (COM3)
 - **USB Serial Port** (COM4)
 - **USB Serial Port** (COM5)
 - USB Serial Port (COM6)
- b) under *Universal Serial Bus controllers you* will see 7 new *USB drivers*:
 - 2x USB Serial Converter A
 - 2x USB Serial Converter B
 - 1x Generic USB Hub
 - 2x USB Composite Device

Generally, but not mandatory, the second new *COMx* port in the *Ports (COM & LPT)* list should be the *ATcommand/Program* port, while and the fourth new *COMx* port should be the *NMEA/RESERVED* port, easily verified by programs like PROCOMM and HYPERTERMINAL.

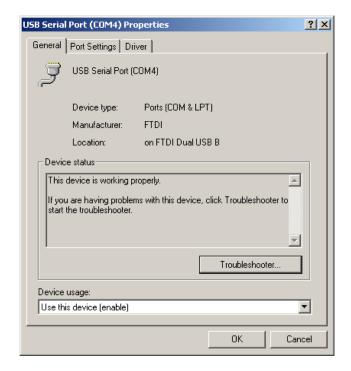




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1.3.4 COMport identifier renumbering

Because the OS automatically assigns the *COMnumber*, you may need to change these identifiers. To do this, first click once on the *COMx* port you want to change (right mouse button) and then on *Properties* in the opening window (left mouse button) to enter the Port Setting window.

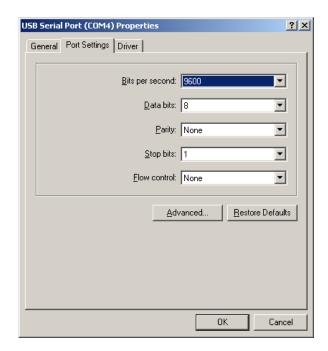


→ Click on **Port Settings**

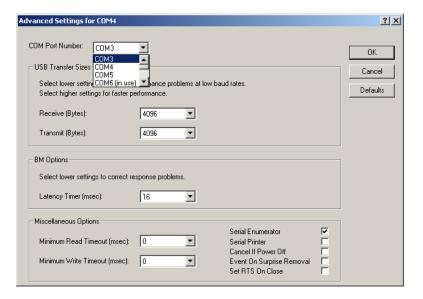




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→ Click on *Advanced* (left mouse button) in the next window to open the COM port list



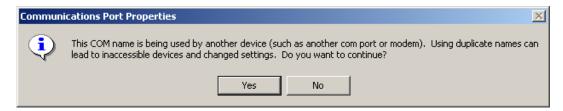
- →Click the "down arrow" of COM Port Number to choose the new name (e.g. COM7).
- →Click **OK** both on this and on the next window.

NOTE: A warning "(in use)" could be shown after the COMnumber you want to use: in the above figure it is after COM6. If you click on **OK**, a message will ask you for a confirmation.





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→Click on **YES** button only if you are sure that the COM6 could be used.

1.4 Technical Support

Telit Communications S.p.A. technical support to **EVK2** customer is included into official Website *www.telit.com*, which contains also all available technical documentation to download