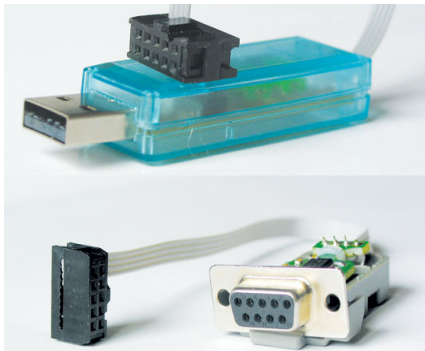
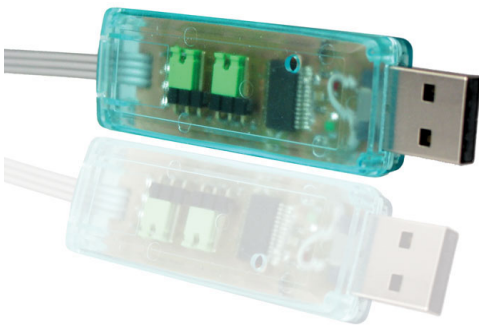


UART to RS232 or USB adapters

Written by Bojan Kovač - Last Updated Wednesday, 01 August 2012 14:46



The abbreviation UART stands for Uni-ver-sal Asynchro-nous Re-ce-i-ver/Tran-smit-ter. It is a serial data interface with a defined speed. Regardless of the actual voltage level of the RS232 signals, these RS232/RS482 devices present signals to the microcontroller as a logical 0 or 1.



This protocol sends data to the microcontroller serially, which means the data stream must be converted back to parallel (which is the function of the UART block in the microcontroller). A block diagram of such a data transfer is shown in Figure 1.

Data transfer via the USB bus is similar to RS232 with a some differences: USB is a faster transfer method, and to interface it with a microcontroller, we can use a USB to UART bridge, such as the FT232RL made by Future Technology Devices International LTD (FTDI) [1].

There are a variety of different asynchronous serial adapters available on the market. Bascom-AVR communicates with all of these with one statement meant to send data to the AVR's UART- the Print statement.

