

• • • • • **Hard/Soft Kit for USB Multipurpose Gateway**

DESCRIPTION:

The USB Multipurpose Gateway from Créalie enables your product to support different types of USB devices by integrating the necessary USB Host functionalities. The supported peripherals are:

- Mass Storage devices like USB memory stick or external hard drive,
- HID devices like keyboard, mouse or joystick,
- Printer (in character mode)

Based on a Cypress EZ-Host family microcontroller, the USB Multipurpose Gateway provides with 2 USB host ports, allowing you to manage 2 devices simultaneously. Gateway management is performed by the host system through a serial interface (UART) using a simple protocol. This kit comes with both ready-to-use hardware and software, making integration as simple as Plug'n Play.

USB MASS STORAGE MANAGEMENT:

Files and directories can be created, written, read and deleted. Files created or written through the gateway can of course be read afterwards by any system supporting USB Mass Storage devices (PC, Mac). Files may also be written by a PC and read by your product. The gateway can manage FAT16 or FAT32 file system without any size limitation.

Other advanced functionalities like directory navigation, file date and information management or available data space are also provided.

HID PERIPHERAL MANAGEMENT:

HID peripheral like keyboards, mice or barcode reader can be managed by the gateway. Any time the peripheral sends a report indicating a status change (key press/release, mouse movement), this report is forwarded to the main controller through the serial link.

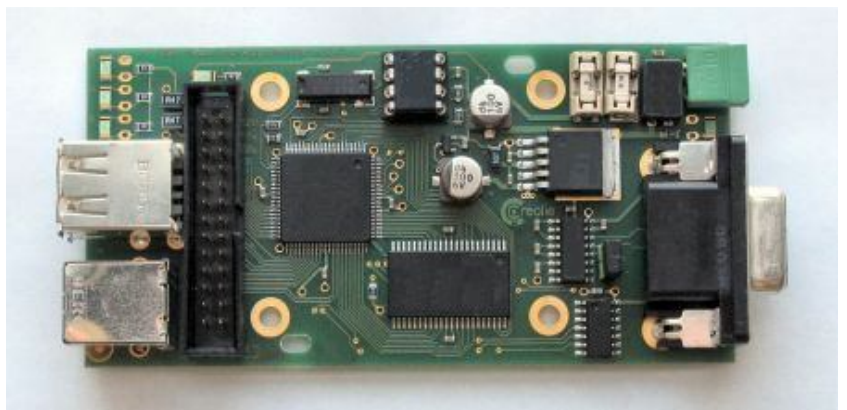
CHARACTER MODE PRINTER MANAGEMENT:

USB printers can be managed through the gateway. Actually, only the Axiohm "Telesto" thermal printer is supported by the gateway in the current version but any other printer using character mode can be integrated on request. The gateway allows to send data to the printer via the serial link and to retrieve printer status and errors.

HARDWARE DESCRIPTION:

The gateway is provided with a ready-to-use board including all necessary hardware. This board can be enclosed in a case or directly included in your product on request. The schematic is also provided, allowing you to easily add the gateway functionality to your own product board. The hardware is based on a Cypress EZ-Host family microcontroller (CY7C67300).

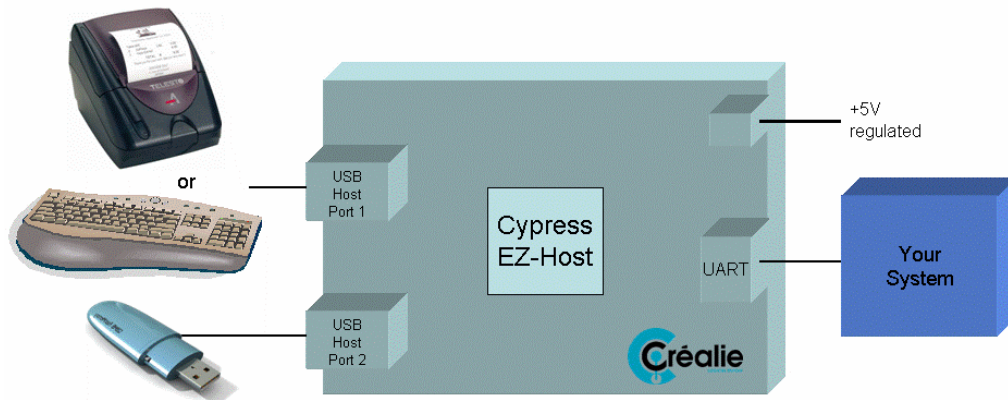
Software runs on an external RAM chip, and an external EEPROM is used for code storage (code is transferred from EEPROM to RAM at startup). To update the software, the EEPROM can be re-programmed directly from a USB Mass Storage device.



SERIAL ASYNCHRONOUS INTERFACE:

A serial asynchronous link, via RS232 or UART interface, enables direct communication with any existing hardware. The baud rate can be set up to 115.2 kbauds. Other interfaces like SPI or High Speed Serial can be provided on request.

EXAMPLE OF USE:



CONTENT OF THE KIT:

- Electronic board with software in EEPROM memory
- User licence
- Software binary file for Cypress EZ-Host
- User manual
- Hardware schematic

USER LICENCE :

The customer is allowed to use the kit or some parts of it in any of its products. Software binary file and hardware schematic are provided in order to facilitate the integration in your product. Source code may also be sold on specific request.

GUARANTEE :

Créalie provides a 6 months guarantee, including both software and hardware components.

INTEGRATION IN YOUR PRODUCT:

This hard / soft kit can be integrated in your product or in a box connected to your product. The Cypress EZ-Host may include some part of your software application. Créalie is able to develop this software for you or integrate your existing software in the EZ-host.

CUSTOMIZATION :

Besides its generic offer, Créalie can provide on-demand adaptations, regarding hardware or software.

Here are several examples of adaptations:

- Addition of a USB device functionality
- Interface tuning
- Integration of a second serial interface
- Integration of an I2C link
- Design tuning
- Bridge between 2 USB devices.

For further information, please contact Béatrice LEO:



CREALIE

Centre Pleyel, 153, Bd Anatole France,
93521 Saint-Denis Cedex
www.crealie.com

Telephone: (+33) (0)1 55 87 03 40
Fax: (+33) (0)1 55 87 03 44
E-mail: beatrice.leo@crealie.com