

PL2305 (Chip Rev I) USB to Printer Port Bridge Controller

OVERVIEW

The PL2305 integrated circuit provides a bi-directional bridge between the Universal Serial Bus (USB) system and IEEE-1284 parallel port printers. It is designed to be a flexible, high performance, and low-cost single-chip solution for USB cable as well as USB ready peripheral manufacturers.

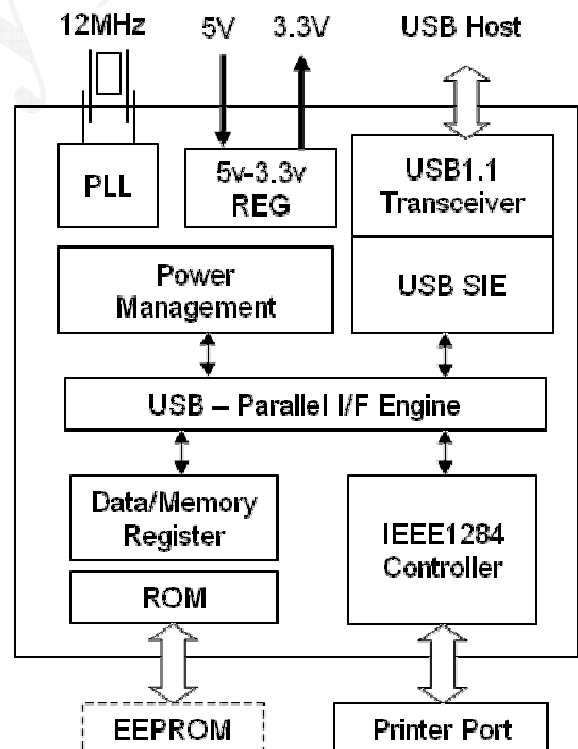
The PL2305 controller is designed according to the USB Printer Class specification so that default inbox driver is embedded in most of the popular operating systems such as Windows, Mac, and Linux. No separate driver is needed to install. The PL2305 is default to negotiate with the printer into Nibble mode for upstream data and Compatible mode for downstream data transfer.

The external serial EEPROM support gives the user of PL2305 options to customize this chip to show their identity. The user could modify the Vendor ID, Product ID, Language ID, manufacturer string, and product string of the final product. They could also use this EEPROM to store authorization/security codes. For large quantity orders, it is also possible to modify the Maskable ROM (Read Only Memory) of PL2305 to better represent the final product manufacturer and thus eliminate the need for external EEPROM.

FEATURES

- Configurable outbound and inbound buffer
- Full compliance with the Universal Serial Bus Specification Version 1.1.
- Full compliance with the Universal Serial Bus Device Class Definition for Printing Devices Version 1.0.
- Full compliance with Nibble mode and Compatible mode defined in the IEEE std 1284-1994 – "IEEE Standard Signaling Method for a Bi-directional Parallel Peripheral Interface for Personal Computers"
- On chip transceivers and regulator for USB interface
- Fully automatic high speed bi-directional communication over parallel port
- 512 Bytes unified data buffer dynamically allocated for upstream and downstream data transfer
- Pin-to-Pin compatible with PL-2305(Chip Rev H)
- USB-IF Logo Compliant: 40001165
- Small footprint 48-pin SSOP

BLOCK DIAGRAM



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