PL2523
USB2.0 to Dual UART Bridge Controller
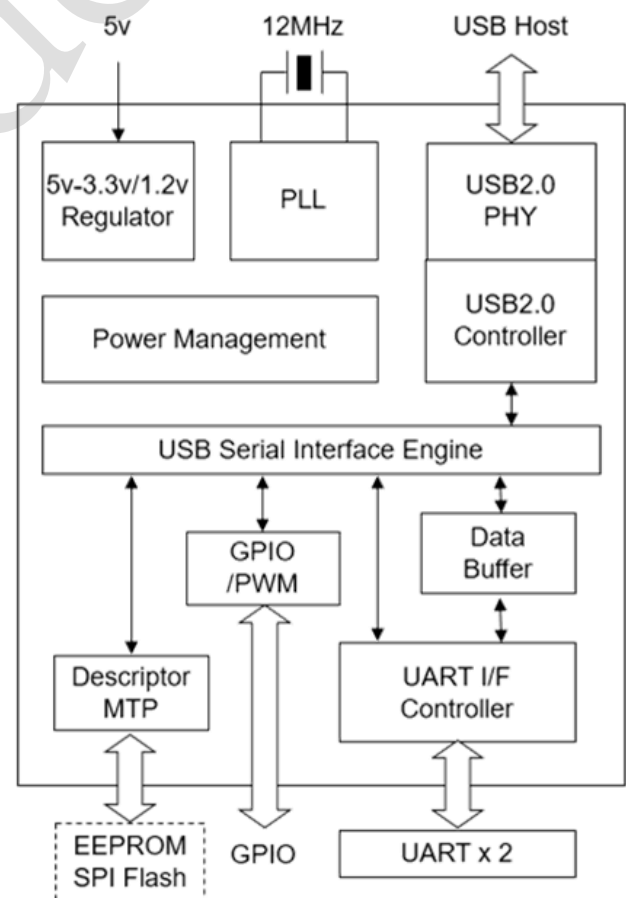
OVERVIEW

The PL2523 is a high-performance USB 2.0 to Dual UART bridge controller, part of the PL2303 series. It enables connection of RS232/422/485 serial devices to any USB host, supporting two independent UART channels. Fully compliant with USB 2.0 High-Speed, Prolific offers highly compatible virtual COM port (VCP) drivers for broad OS support (Windows, Mac, Linux, Android), allowing seamless migration of COM port-based applications. It also works with inbox USB CDC-ACM driver for driverless VCP functionality in many OSes, offering a versatile solution for diverse serial connectivity needs.

The PL2523 supports UART baud rate from 5bps to 24Mbps. By taking advantage of USB bulk transfer mode and large data buffers, PL2523 is capable of achieving higher throughput compared to traditional UART (Universal Asynchronous Receiver Transmitter) ports. Environmentally conscious, the PL2523 can work as USB Mass Storage Device with external SPI Flash, allowing vendors to store driver, applications and documents directly, eliminating the need for CD-ROMs.

FEATURES

- USB2.0(High-Speed) Specification compliant
- Support USB CDC/Virtual COM class driver
- Support Battery Charger (BC1.2) detection
- On-chip 5v to 3.3v/1.2v regulator
- Programmable baud rate from 5bps to 24Mbps
- Support 2 channels UART simultaneously
- Support RS232/RS422/RS485
- Hardware/Software flow control
- Adjustable high/low watermark level
- On-chip MTP for USB device, configuration, and serial number descriptors customization
- Store driver file via SPI NOR flash
- Provide 7 GPIOs for custom applications
- Support PWM and access LED
- Support external SPI flash to behave as USB Mass Storage Device
- -40˚C to 85˚C operating temperature
- Package type: QFN48

BLOCK DIAGRAM