

PL23C3

USB HID to I2C Bridge Controller

OVERVIEW

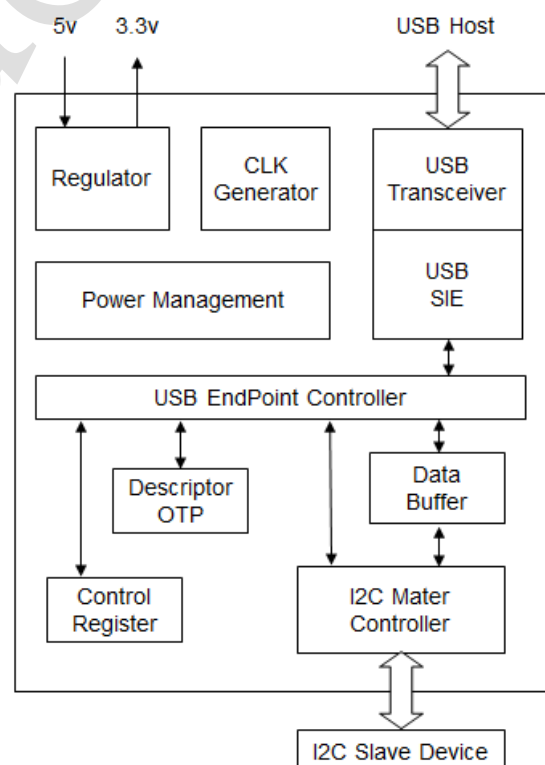
The PL23C3 is a high performance single-chip USB HID to I2C bridge controller for connecting various I2C interface devices to any Universal Serial Bus (USB) capable host. The PL23C3 implements the standard USB Human Interface Device (HID) device class which is natively supported in most operating systems; so the PL23C3 does not need any custom driver installation. The operating system or USB host communicates with the PL23C3 through HID application software developed based on Prolific Windows/Mac/Linux DLL libraries.

The PL23C3 is designed to support a wide-range of I2C domain including portable, embedded, industrial, consumer devices. With very small power consumption in either operating or suspend mode, the PL23C3 is perfect for self-powered operation and can reserve power for the attached I2C devices. Flexible signal voltage option allows the PL23C3 to connect directly to I2C devices with 5V~1.8V signals.

FEATURES

- Full Compliant with USB Specification v2.0 (Full-Speed)
- Full Compliant with USB HID class driver
- On-chip USB 1.1 transceiver and 5V to 3.3V regulator
- On-chip 96MHz Clock Generator
- USB Human Interface Device (HID) class:
 - No driver installation needed for Windows, Mac, Linux, and Android.
 - Provides HID-to-I2C SDK (DLL libraries) for application development.
- USB HID to I2C Master specification support
 - Supports I2C Standard mode, Fast Mode and Fast Mode Plus (FM+) up to 1 Mbit/s
 - Supports flexible I2C SCL clock generation, clock rate up to 1MHz
- 1024-byte bi-directional data FIFO buffers (768-byte receive/256-byte transmit).
- Package type: QFN16

BLOCK DIAGRAM



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