

PL2303EA

ESD-Protected USB to Serial Bridge Controller

OVERVIEW

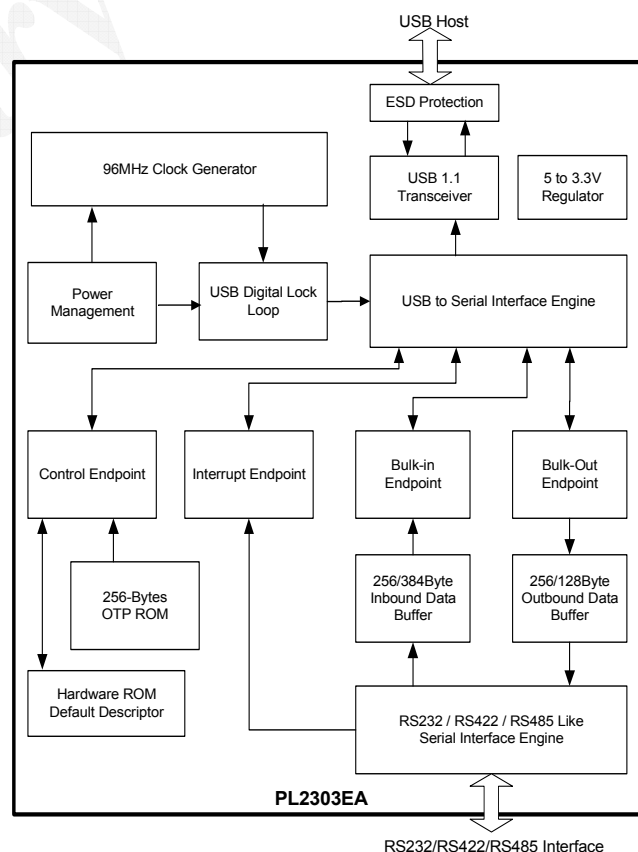
The PL2303EA is a low cost, high performance, and ESD-protected USB-to-Serial Bridge Controller. The PL2303EA provides a convenient solution for connecting an RS-232 full-duplex asynchronous serial device to any Universal Serial Bus (USB) capable host that requires USB port system-level high ESD protection. The PL2303EA eliminates the need for external ESD protection components to minimize PCB size and save BOM costs. It offers ESD protection on the USB port pins up to $\pm 15\text{kV}$ Human Body Model (HBM) and is according to the IEC-61000-4-2ESD specification.

The PL2303EA is exclusively designed for mobile, embedded systems, and industrial control systems, providing a stable and flexible solution for connectors and devices. With very small power consumption in either operating or suspend mode, it is perfect for bus powered operation with plenty of power left for the attached devices. Flexible signal level requirement on the RS-232 serial port side also allows the PL2303EA to connect directly to 3.3V ~ 1.8V devices. The PL2303EA integrates embedded clock and OTPROM (One-Time Programmable ROM) to save external crystal and EEPROM.

FEATURES

- Full compliance with the USB Specification v1.1
- Supports RS232/RS422/RS485 interface
- $\pm 15\text{kV}$ High ESD HBM (Human Body Model) Protection on USB Port (4-Pin)
- System-level ESD Specification on USB Port (4-Pin)
 - $\pm 15\text{kV}$ IEC 61000-4-2 Air Discharge
 - $\pm 8\text{kV}$ IEC 61000-4-2 Contact Discharge
- On-chip USB 1.1 transceiver and 5V to 3.3V regulator
- Supports RS-232 serial interface with Programmable baud rate from 75 bps to 12 Mbps
- Integrated OTPROM (One-Time Programmable ROM) & 12MHz Clock Generator
- Configurable outbound and inbound buffer
- Supports remote wake-up from MODEM input signals
- Supports 4 to 8 GPIO pins
- Pin-to-Pin compatible with PL-2303HXD (HX Rev D) chip and driver compatible
- Package type: SSOP28

BLOCK DIAGRAM



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