

# PL2303RA

## USB to Serial Bridge Controller (Built-in RS232 Transceiver)

### OVERVIEW

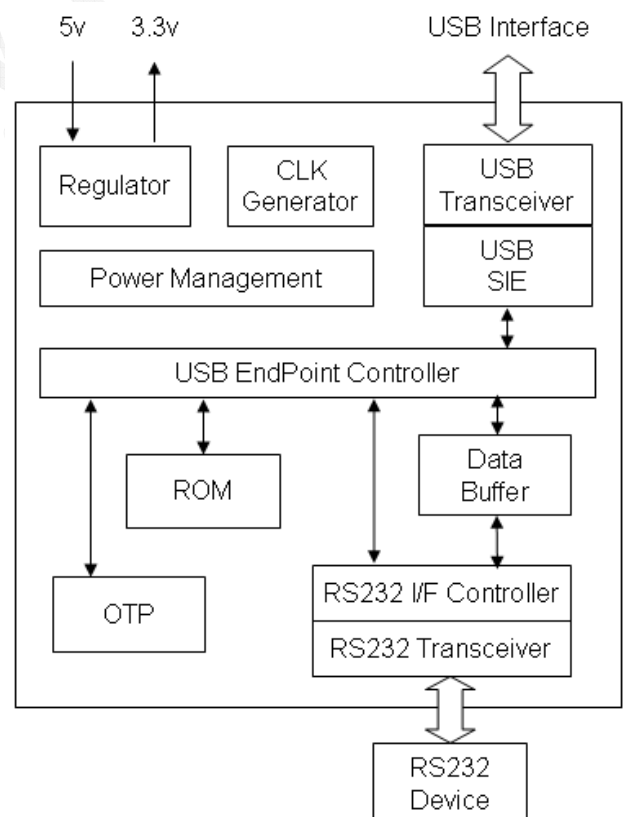
The PL2303RA is a low cost and high performance USB-to-Serial Bridge Controller with built-in RS232 transceiver. The PL2303RA provides a convenient solution for connecting an RS-232 full-duplex asynchronous serial device to any Universal Serial Bus (USB) capable host. The PL2303RA highly compatible drivers could simulate the traditional COM port on most operating systems allowing the existing applications based on COM port to easily migrate and be made USB ready.

The PL2303RA integrates a high baud rate RS-232 transceiver that meets the EIA/TIA-232F and CCITT V.28 communications interface specifications. The RS-232 transceiver is a 3-transmitters and 5-receivers device with a high-efficient charge pump circuit embedded. It provides the bipolar output to the transmitters, and makes the transmitters to deliver the RS-232 output voltage levels. Under normal operation, PL2303RA operates at very low power consumption with guaranteed data rate up to 1000kbps.

### FEATURES

- Full Compliant with USB Specification v2.0 (Full-Speed)
- On chip USB 1.1 transceiver, 5V→3.3V regulator and 96MHz Clock Generator
- Built-in RS232 Transceiver
  - Follow EIA/TIA-232F standards
  - Guaranteed 1000kbps transmission rate under loading
  - Three RS232 Drivers design
  - Five RS232 Receivers (always active)
- Programmable baud rate from 75 bps to 6,000,000 bps
- Extensive flow control mechanism
  - Adjustable high/low watermark level
  - Automatic flow control with CTS/RTS/ XON/XOFF
- Configurable 256-byte outbound buffer and 256-byte inbound buffer or 128-byte outbound buffer and 384-byte inbound buffer
- Supports remote wake-up from MODEM input signals
- Four general purpose I/O (GPIO) pins
- On-chip OTP (One Time Programmable) ROM for writing startup device configurations
- Small footprint 28-pin SSOP IC package

### BLOCK DIAGRAM



### Prolific Technology Inc.

7F, #48, Sec.3, Nan-Kang Rd., Taipei, Taiwan 115, ROC  
Tel: 886-2-2654-6363 Fax: 886-2-2654-6161  
E-mail : [sales@prolific.com.tw](mailto:sales@prolific.com.tw)  
<http://www.prolific.com.tw>

