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USB bus convert chip CH341

Products

1. Introduction

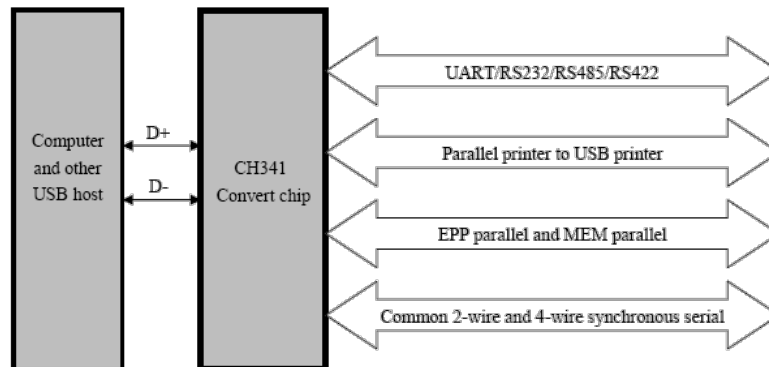
CH341 is a USB bus convert chip, providing UART, printer port, parallel and common synchronous serial with 2-wire or 4-wire through USB bus.

In UART mode, CH341 provides alternant rate control signals such as serial transfer enable, serial receive in ready etc. It also supplies common MODEM communication signal in order to expand UART for computer or upgrade common synchronous interface device to USB bus directly.

In printer port mode, CH341 supplies standard USB printer port which compounds USB relevant protocol and Windows operate system used to upgrade ordinary parallel printer to USB bus directly.

In parallel mode, CH341 gives out 8-bit parallel in EPP mode or MEM mode. It can be used to input/output data directly without MCU/DSP.

Besides, CH341A also supports some common synchronous serial such as 2-wire (SCL, SDA) and 4-wire (CS, SCK/CLK, MISO/SDI/DIN and MOSI/SDO/DOUT) interface.



2. Features

2.1. Introduction

- Full speed USB device interface, conforms to USB Specification Version 2.0, only needs crystal and capacitance external.
- Optional: define Vendor ID, production ID and list number through external low-cost serial EEPROM.
- Supports 5V and 3.3V power source.
- Low-cost, directly convert serial peripheral equipment, parallel printer and parallel peripheral equipment.
- SOP-28 and SSOP-20 package lead free, compatible with RoHS.
- Only compatible with application layer because interfaces are diverted via USB.

2.2. UART

- Simulate standard serial used to upgrade serial peripheral equipment or increase extra serial via USB.
- Totally compatible with serial application program of computer Windows operation system.
- Hardware full-duplex serial, on-chip transform and receive buffer, supports 50bps~2Mbps communication baud rate.
- Supporting five, six, seven or eight data bits, supporting odd, even, blank, token and no check.
- Supporting serial transfer and receive enable and serial receive ready etc transfer speed control signal and MODEM liaison signal.
- Providing RS232, RS485 and RS422 interface through adding level switch equipment external.
- Supporting indirectly access to outside serial EEPROM memory through standard serial communication.

2.3. Printer port

- Standard USB printer port used to upgrade parallel printer, conforms to relevant USB specification.
- Compatible with Windows operation system, totally compatible with application program under Windows 2000 and XP without drive program.
- Supports various standard parallel printers, low-speed and high-speed print mode are optional.
- Supports bi-directional communication of IEEE-1284 specification, supports single directional and bi-directional transfer printer.

2.4. Parallel

- Providing two interface mode: EPP and MEM.
- EPP mode supplies AS#, DS# and WR# etc signal, similar with EPP V1.7 or EPP V1.9.
- MEM mode supplies A0, RD# and WR# etc signal, similar with memory read/write mode.

2.5. Synchronous serial

- Adopts FlexWire™ technology, realize various 2-wire to 5-wire synchronous serial via software.
- As Host/Master endpoint, supports 2-wire and 4-wires etc common synchronous serial.
- 2-wire interface supplies SCL and SDA signal wire, supports four kinds of transfer speed.

[Detail information](#)

Relative information: [CH352DS1.PDF](#) CH352 English DataSheet PCI dual UA

Relative information: [CH340DS1.PDF](#) The DataSheet about CH340 Used for