



USB TO TTL-UART

The schematic diagram illustrates a USB to TTL-UART converter circuit centered around the FT230XS integrated circuit (U3). The circuit includes the following components and connections:

- FT230XS (U3):** The central IC, with pins labeled TXD, RTS, VCCIO, RXD, GND, CTS, CBUS2, USBDP, CBUS3, CBUS0, CBUS1, GND, VCC, RESET, 3V3OUT, and USBDM.
- Power Supply:** A 3V3/1.2C supply is connected to the circuit. A 4.7k resistor (R2) is connected between the 3V3 supply and the RX pin of U3. Another 4.7k resistor (R3) is connected between the 3V3 supply and the TX pin of U3.
- Signal Connections:**
 - RX/1.3B:** Connected to the TX pin of U3 via a 1k resistor (R12).
 - TX/1.3B:** Connected to the RX pin of U3 via a 1k resistor (R13).
 - D+ P/1.1A:** Connected to the USBDP pin of U3 via a 27 ohm resistor (R11).
 - D- N/1.1A:** Connected to the USBDM pin of U3 via a 27 ohm resistor (R10).
- Capacitors:**
 - C9 (47pF) and C8 (100nF) are connected to the TX and RX pins of U3, respectively, to ground.
 - C10 (47pF) is connected to the USBDM pin of U3 to ground.
 - C6 (100nF) and C7 (4.7uF) are connected to the D+ and D- lines, respectively, to ground.
 - C3 (10nF) is connected to the VBUS line to ground.
- Inductor:** L1 (2508056017Y2) is connected between the VBUS line and the 5V0/1.6C supply.
- Other Components:**
 - TX and RX LEDs are connected to the TX and RX pins of U3, respectively, with 4.7k resistors (R2 and R3) in series.
 - The 5V0/1.6C supply is connected to the VBUS line.