

The diagram shows a common ground at the bottom. Seven parallel branches are connected to this ground. Each branch contains a 3V3 voltage source (represented by a red line with a horizontal bar) in series with a capacitor. The capacitors are labeled C1, C2, C3, C4, C5, C6, and C8. The values for C1 through C5 and C6 are 100nF, and for C8 is 4.7uF.

The image displays four identical circuit diagrams side-by-side, each representing a different LED output from a microcontroller. Each circuit includes a 3V3 power supply connected to a 1k resistor (labeled R1, R2, R3, or R4). The other end of the resistor is connected to the anode of an LED (labeled LED1, LED2, LED3, or LED4). The cathode of each LED is connected to a specific microcontroller pin (P1_10/STATUS, RSTOUT, RX_LED, or TX_LED). The pins are labeled with blue text, while the components and connections are shown in red.

The diagram illustrates the J1 MICROMOD-2222 connector, which is a 70-pin header. The connections are as follows:


- Power and Reset:**
 - VUSB (Green) connects to Pin 1.
 - VRTC (Green) connects to Pin 2.
 - 3V3 (Green) connects to Pin 3.
 - RESET (Blue) connects to Pin 4.
 - BOOT (Blue) connects to Pin 5.
- USB and SPI:**
 - USB_D- (Blue) connects to Pin 6.
 - USB_D+ (Blue) connects to Pin 7.
 - USB_VIN (Blue) connects to Pin 8.
 - USB_D- (Blue) connects to Pin 9.
 - USB_D+ (Blue) connects to Pin 10.
 - USBHOST_D- (Blue) connects to Pin 11.
 - USBHOST_D+ (Blue) connects to Pin 12.
 - CAN-TX (Blue) connects to Pin 13.
 - CAN-RX (Blue) connects to Pin 14.
 - SWDIO (Blue) connects to Pin 15.
 - SWDCK (Blue) connects to Pin 16.
- GPIO and I2C:**
 - P0_30/USB_D-1 (Blue) connects to Pin 17.
 - P0_29/USB_D+1 (Blue) connects to Pin 18.
 - P2_7/CAN_RD2 (Blue) connects to Pin 19.
 - P2_8/CAN_TD2 (Blue) connects to Pin 20.
 - P0_9/I2S_TX_SDA (Blue) connects to Pin 21.
 - P0_6/I2S_RX_SDA (Blue) connects to Pin 22.
 - P0_8/I2S_TX_WS (Blue) connects to Pin 23.
 - P0_7/I2S_TX_SCK (Blue) connects to Pin 24.
 - P0_11/I2C2_SCL (Blue) connects to Pin 25.
 - P0_10/I2C2_SDA (Blue) connects to Pin 26.
 - P2_6 (Blue) connects to Pin 27.
 - P0_0/I2C1_SDA (Blue) connects to Pin 28.
 - P0_1/I2C1_SCL (Blue) connects to Pin 29.
 - P0_25/ADC0_IN2 (Blue) connects to Pin 30.
- Other Connections:**
 - BATT_VIN/3 (Blue) connects to Pin 31.
 - GND (Green) connects to Pin 32.
 - GND (Green) connects to Pin 33.
 - GND (Green) connects to Pin 34.
 - GND (Green) connects to Pin 35.
 - GND (Green) connects to Pin 36.
 - GND (Green) connects to Pin 37.
 - GND (Green) connects to Pin 38.
 - GND (Green) connects to Pin 39.
 - GND (Green) connects to Pin 40.
 - GND (Green) connects to Pin 41.
 - GND (Green) connects to Pin 42.
 - GND (Green) connects to Pin 43.
 - GND (Green) connects to Pin 44.
 - GND (Green) connects to Pin 45.
 - GND (Green) connects to Pin 46.
 - GND (Green) connects to Pin 47.
 - GND (Green) connects to Pin 48.
 - GND (Green) connects to Pin 49.
 - GND (Green) connects to Pin 50.
 - GND (Green) connects to Pin 51.
 - GND (Green) connects to Pin 52.
 - GND (Green) connects to Pin 53.
 - GND (Green) connects to Pin 54.
 - GND (Green) connects to Pin 55.
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 - GND (Green) connects to Pin 57.
 - GND (Green) connects to Pin 58.
 - GND (Green) connects to Pin 59.
 - GND (Green) connects to Pin 60.
 - GND (Green) connects to Pin 61.
 - GND (Green) connects to Pin 62.
 - GND (Green) connects to Pin 63.
 - GND (Green) connects to Pin 64.
 - GND (Green) connects to Pin 65.
 - GND (Green) connects to Pin 66.
 - GND (Green) connects to Pin 67.
 - GND (Green) connects to Pin 68.
 - GND (Green) connects to Pin 69.
 - GND (Green) connects to Pin 70.

USB to Serial Converter

The diagram illustrates a USB to Serial Converter circuit. A 3V3 USB source is connected to the CH9102F IC (U2) through three 100nF capacitors (C11, C12, C13). The USB_D+ and USB_D- lines are connected to pins 1 and 2 of U2, respectively. The VBUS line is connected to pin 7 of U2. The CH9102F IC is also connected to a 3V3 supply through a 10k resistor (R8). The serial output of the CH9102F IC is connected to the TXD and RXD pins of the microcontroller (U1) through two 100 ohm resistors (R9, R10). The TXD pin of U1 is connected to the TX_LED pin of U2, and the RXD pin of U1 is connected to the RX_LED pin of U2. The TX_LED and RX_LED pins of U2 are connected to the TXD and RXD pins of U1, respectively.

Component List:

- U1: Microcontroller (Pinout: R1 GND, UD+ 3, UD- 4, VIO 5, V3 6, VDD5 7, VBUS 8, RST# 9, ACT# 10, WAKEUP/GP103 11, TNOH/GP102 12)
- U2: CH9102F (Pinout: DCD 24, DTR 23, DSR 22, TXD 21, RXD 20, RTS 19, CTS 18, SUSPEND 17, GP104 16, SUSPEND# 15, TXS/GP100 14, RXS/GP101 13)
- R8: 10k
- R9: 100
- R10: 100
- C11: 100nF
- C12: 100nF
- C13: 100nF

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