

[illegible]

The diagram shows two circuit sections. The left section is a switch circuit: a green line from GND goes to terminal 1 of a SPST switch (SW1). Terminal 2 of the switch goes to a node between a 10K resistor (R7) and a 100nF capacitor (C10). The other end of R7 is connected to +3.3V, and the other end of C10 is connected to GND. The right section is an LED driver circuit: three green lines labeled LED_R, LED_G, and LED_B each pass through a 1K resistor (R8, R9, R10) to terminals 1, 2, and 3 of a 3-pin LED package (D3, LED_RGB8A). Terminal 4 of the LED package is connected to +3.3V.

MOUNTING HOLES

The diagram illustrates four mounting holes, labeled H1, H2, H3, and H4, each with a corresponding 'Hole_Pad'. Each hole is connected to a ground plane (GND) via a vertical line representing a via. The connections are shown as green lines with red arrows pointing downwards towards the GND label.

MCU

Use boot control pins with caution: 0,2,5,12,15

I00: Avoid device connections.
 I02: Avoid external pullups – will cause bootloader fail.
 I05: Has builtin pulup at POR (Power and Reset).
 I012: Avoid external pullups – will cause bootloader fail.
 I015: Has builtin pullup at POR (Power and Reset).

ADC2 is not available when using WIFI

The diagram illustrates the electrical connections for an I2C sensor module. It features a yellow I2C sensor chip (U4, Si7021-A20) with pins 1 (SDA), 2 (SCL), 3 (GND), 4 (VDD), 5 (P AD), 6 (GND), and 7 (GND). The chip is connected to a green I2C bus. The SDA line is connected to pin 1 of the sensor and to a pull-up resistor R11 (4K7) to a +3.3V supply. The SCL line is connected to pin 2 of the sensor and to a pull-up resistor R12 (4K7) to a +3.3V supply. A decoupling capacitor C11 (22u) is connected between the +3.3V supply and GND. A decoupling capacitor C12 (100n) is connected between the VDD pin of the sensor and GND. The sensor is also connected to a QWIIIC connector (J2, Conn_01x04) which has pins 1 (VCC), 2 (SDA), 3 (SCL), and 4 (GND). The VCC pin of the connector is connected to the +3.3V supply, and the GND pin is connected to GND.

RELAY

RELAY

5V

R15 1K

D2 YELLOW

D1 LL4148

K1 RT314A05

J3 Screw_Terminal_D01x03

RELAY

R14 1K

R13 10K

Q2 BC177

GND

GND

For larger load connections

LED DRIVER

LED DRIVER

The diagram shows a circuit for driving LEDs using a 74AHCT245 buffer. The circuit includes a 5V supply, a 100nF capacitor (C13), a 1000uF/25V capacitor (C1), a 220 ohm resistor (F1), and two screw terminals (J5 and J4). The 74AHCT245 is connected with VCC to 5V, A0-A7 to LEDSTR1-LEDSTR4, and B0-B7 to J4. J5 provides external 5V supply to the screw terminal.

Components and Connections:

- 5V Supply:** Connected to VCC (pin 20) and A0 (pin 2).
- Capacitors:** C13 (100nF) is connected between 5V and GND. C1 (1000uF/25V) is connected between 5V and GND.
- Resistor:** F1 (220 ohm) is connected between 5V and GND.
- Screw Terminals:** J5 (Screw_Terminal_01x02) is connected to 5V and GND. J4 (Screw_Terminal_01x08) is connected to 5V and GND.
- 74AHCT245:** A 8-bit bus buffer. VCC (pin 20) is connected to 5V. A0-A7 (pins 2, 3, 4, 5, 6, 7, 8, 9) are connected to LEDSTR1-LEDSTR4. B0-B7 (pins 18, 17, 16, 15, 14, 13, 12, 11) are connected to J4.