

3V3 Vreg Device

Enable Delay  
~0.001s  
Should enable  
after 1v2 rail  
(Test!!!!)

The diagram shows a 1V2 voltage divider device (U3) connected to a +5V supply and ground. The device has pins labeled 1 (IN), 2 (OUT), 3 (EN), 4 (BYP), and 5 (GND). The input (pin 1) is connected to +5V. The output (pin 2) is connected to a +1V2 supply. The device is also connected to ground (pin 5). Two capacitors, C8 (4u7) and C11 (10n), are connected to the input and output respectively, with their other terminals connected to ground. The output is also connected to a +1V2 supply and a capacitor C15 (4u7) connected to ground.

[illegible]

## Dual PMOD

**Single PMOD**

The diagram illustrates the wiring for a single PMOD module. It features two PMOD connectors, J23 and J27, and several passive components.

- J23 PMOD:** A 12-pin connector. Pins 1 through 6 are connected to a +3V3 supply. Pins 7 through 12 are connected to GND. Specific components are connected to these pins:
  - Pins 1 and 2: R4A (33k)
  - Pins 3 and 4: R22A (33k)
  - Pins 5 and 6: R22C (33k)
  - Pins 7 and 8: R4B (33k)
  - Pins 9 and 10: R22B (33k)
  - Pins 11 and 12: R22D (33k)
- J27 5V AUX:** A 5V AUX connector. Pin 1 is connected to a +5V supply, and pin 2 is connected to GND.
- Capacitors:** A capacitor C34 (100nF) is connected between the +3V3 supply and GND. A component labeled DNP (Not Needed) is also shown.

The diagram illustrates the wiring for the RGB LED module. It features two LEDs, J25 and D11, and a J30 connector. The connections are as follows:

- J25 (Top LED):**
  - Pin 1: +1V2
  - Pin 2: +3V3
  - Pin 3: LED\_RGB1
  - Pin 4: LED\_RGB2
  - Pin 5: LED\_RGB0
  - Pin 6: LED\_RGB0
  - Pin 7: GND
  - Pin 8: GND
- D11 (Bottom LED):**
  - Pin 1: +5V
  - Pin 2: +3V3
  - Pin 3: GND
  - Pin 4: LED\_RGB
  - Pin 5: LED\_RGB2
  - Pin 6: LED\_RGB1
  - Pin 7: LED\_RGB0
  - Pin 8: D11
- J30 (Connector):**
  - Pin 1: +5V
  - Pin 2: +3V3
  - Pin 3: GND

WS2812 LED

ET\_OD2 1 2 ET\_OD1  
ET\_1V2 3 4 ET\_OD3  
ET\_GND 5 6 ET\_GND  
ET\_5V 7 8 ET\_3V3

RGB Led

ET\_3V3  
10k R2  
ET\_01  
10k R7  
ET\_OD1  
BSS138  
ET\_GND

WS2812

Unpopulated

The schematic diagram illustrates the electrical connections for the SAU/IZC Ear PCB. It features two main components: an RGB LED (J33) and a surface-mount device (SADD, 354).

**RGB LED (J33) Connections:**

- Pin 1: EB\_OD2
- Pin 2: EB\_OD1
- Pin 3: EB\_V12
- Pin 4: EB\_OD3
- Pin 5: EB\_GND
- Pin 6: EB\_GND
- Pin 7: EB\_5V
- Pin 8: EB\_3V3

**SADD (354) Connections:**

- Pin 1: EB\_3V3
- Pin 2: EB\_OD
- Pin 3: EB\_GND
- Pin 4: EB\_OD

Additional components and connections shown include:

- A 10kΩ resistor (R28) connected between EB\_3V3 and EB\_OD.
- A 10kΩ resistor (R29) connected between EB\_OD and EB\_GND.
- The text "Unpopulated" is present at the bottom left, indicating that the SADD component is not populated on the board.

Sheet: /		
File: icebreaker.sch		
<b>Title: iCEBreaker</b>		
Size: A3	Date:	Rev: V1.0d
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