

The schematic diagram shows the MPL3115A2 module connected to a power supply and ground. The module has a 5-pin header. Pin 1 (VCC) is connected to a 0.1uF capacitor (C7) to ground and a 0.1uF capacitor to the MPL_PWR pin. Pin 2 (CAP) is connected to a 10uF capacitor (C8) to ground. Pin 3 (GND) is connected to ground. Pin 4 (VDDIO) is connected to a 0.1uF capacitor (C9) to ground and a +3.3V supply. Pin 5 (INT2) is connected to the internal int pullups. The module also has two other pins: SCL (pin 8) and SDA (pin 7).

The diagram shows the internal wiring of the Si1145 sensor module. It is powered by a +3.3V supply. Three pull-up resistors (R1, R2, R3) are connected to the +3.3V supply. The SDA pin is connected to the SCL pin. The SI_INT pin is connected to the INT pin. The module is labeled 'actually Si1145'.

[illegible]

re-do sym

V_{USB} min V 3.75

MCP73831 U7

V_{LIPO} C13 4.7uF

C10 4.7uF

R1 10k

R2 10k

R12 10k

STAT 1

GND 2

V_{LIPO} 3

V_{USB} 4

BAT_STAT

Icharge (mA) = 1M/RProg
10k -> 100mA
2k -> 500mA

part # - V_{reg} - Options - temp range - package

2 = 4.20V
3 = 4.35V
4 = 4.40V
5 = 4.50V

Power Control

The Power Control circuit diagram shows the following components and connections:

- V_LIPO** is connected to the **VDD** pin of the **BD48K35G_TL** (U10) and the **VIN** pin of the **TPS27082L** (U11).
- The **TPS27082L** (U11) is configured with **R4** (10k) and **R21** (10k) as a voltage divider. Its **VOUT** pin (3) is connected to the **Vp** pin (8) of the **ICL7673** (U12).
- The **ICL7673** (U12) is configured with **Vs** (2) to **GND** and **SBAR** (3) to **PBAR** (6) via a **10k** resistor (**R22**). Its **Vo** pin (1) is connected to the **VCC** pin (5) of the **74AHC1G02** (U13).
- The **74AHC1G02** (U13) is configured with **A** (1) to **V_LIPO**, **B** (2) to **GND**, and **Y** (4) to **LDO_EN** via a **10k** resistor (**R23**). Its **VCC** pin (5) is connected to **+3.3V**.
- The **TPS77033** (U9) is configured with **IN** (1) to **+3.3V**, **/EN** (3) to **LDO_EN** via a **1uF** capacitor (**C17**), and **OUT** (5) to **+3.3V**. Its **NC** pin (4) is connected to **GND**.
- The **+3.3V** rail is connected to the **VCC** pin of the microcontroller and the **V_COIN** pin of the coin cell.