

# Power and Battery

The diagram illustrates a power management circuit for a device. It includes a USB to UART bridge (J1), a 3V LDO (U2), a 5V LDO (U1), and a battery management IC (MCP73831T-2ACLMC, IC1). The circuit is powered by a USB connection and a battery (BATT).

**USB to UART Bridge (J1):** The USB to UART bridge (J1) is connected to the USB power and ground. It provides a +5P supply to the USB power input and a GND connection to the USB ground. The bridge also provides a +5P supply to the USB power input and a GND connection to the USB ground.

**3V LDO (U2):** The 3V LDO (U2) is connected to the USB power and ground. It provides a +3V supply to the USB power input and a GND connection to the USB ground. The LDO is configured with a 3V LDO AP2112K-3.3V.

**5V LDO (U1):** The 5V LDO (U1) is connected to the USB power and ground. It provides a +5V supply to the USB power input and a GND connection to the USB ground. The LDO is configured with a 5V LDO AP2112K-5.0V.

**Battery Management IC (IC1):** The battery management IC (IC1) is connected to the battery and ground. It provides a +BATT supply to the battery and a GND connection to the battery ground. The IC is configured with a MCP73831T-2ACLMC.

**Other Components:** The circuit includes several other components, including capacitors (C1, C2, C3, C4, C5, C6, C7, C8), resistors (R1, R2, R3, R4, R5), and a diode (D1). The capacitors are used for decoupling and filtering, while the resistors are used for current limiting and voltage division. The diode is used for protection and isolation.

# SOC and FLASH

# Testpoints

The diagram illustrates the test points for the PCB. The components and their corresponding test points are:

- RESET: TP11
- SWCLK: TP1
- SWDIO: TP2
- D+: TP3
- D-: TP4
- IIC\_SDA: TP5
- IIC\_SCL: TP6

The power supply connections for the test points are:

- TP7: +3V0
- TP8: VBUS
- TP9: GND
- TP10: +5P
- TP11: +BATT
- TP12: +BATT

