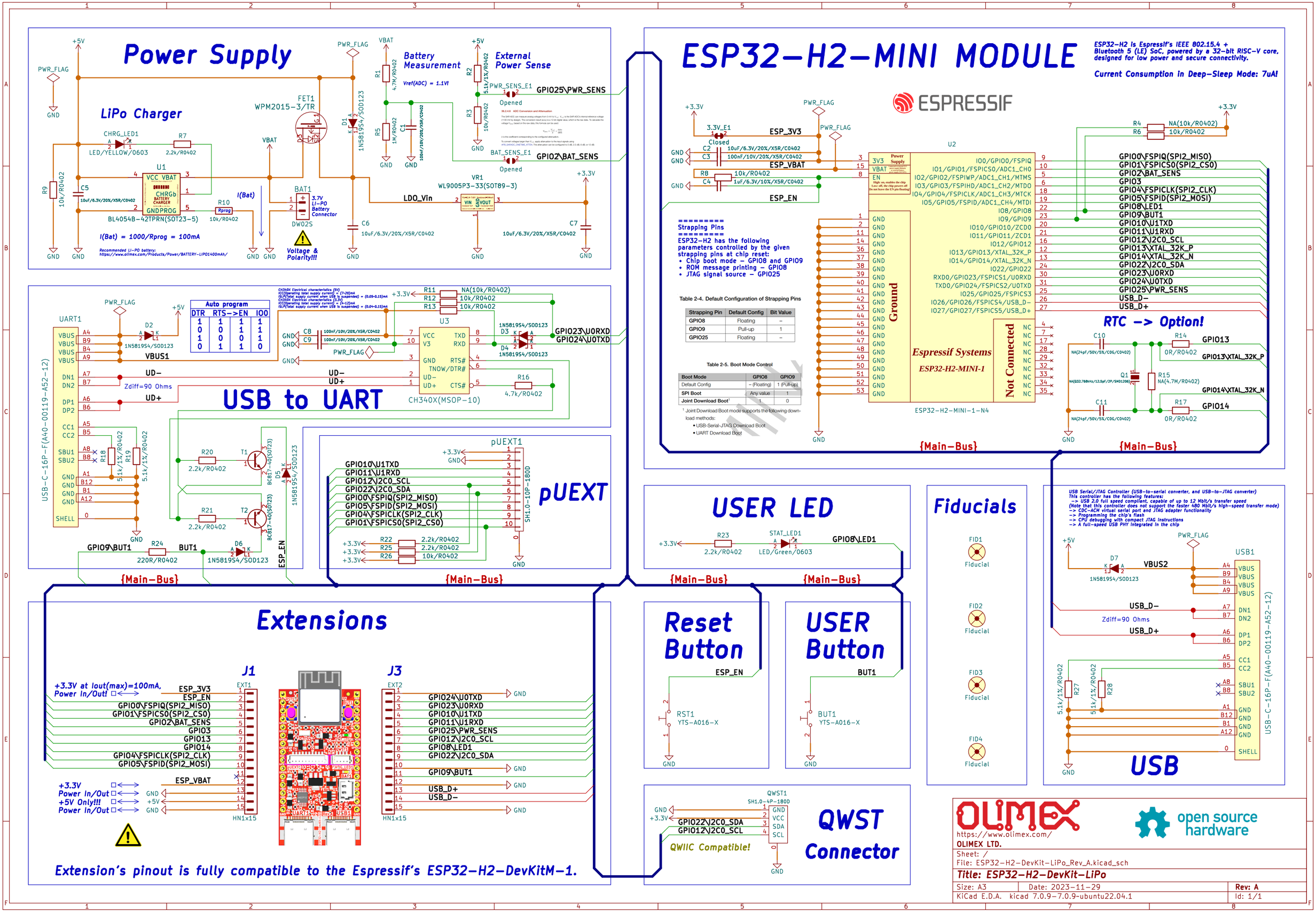
Power Supply
LiPo Charger
Battery Measurement
Vref(ADC) = 1.1V
External Power Sense
GPIO25\PWR_SENS
GPIO2\BAT_SENS
I(Bat) = 1000/Rprog = 100mA
Recommended Li-PO battery:
https://www.olimex.com/Products/Power/BATTERY-LIPO1400mAh/
Voltage & Polarity!!!
ESP32-H2-MINI MODULE
ESP32-H2 is Espressif's IEEE 802.15.4 + Bluetooth 5 (LE) SoC, powered by a 32-bit RISC-V core, designed for low power and secure connectivity.
Current Consumption in Deep-Sleep Mode: 7uA!
ESPRESSIF
Strapping Pins
ESP32-H2 has the following parameters controlled by the given strapping pins at chip reset:
• Chip boot mode – GPIO8 and GPIO9
• ROM message printing – GPIO8
• JTAG signal source – GPIO25
Table 2-4. Default Configuration of Strapping Pins
Table 2-5. Boot Mode Control
Espressif Systems
ESP32-H2-MINI-1
ESP32-H2-MINI-1-N4
Not Connected
Ground
RTC -> Option!
{Main-Bus}
USB to UART
Auto program
CH340X(MSOP-10)
USB-C-16P-F(A40-00119-A52-12)
Zdiff=90 Ohms
pUEXT
USER LED
Fiducials
USB Serial/JTAG Controller (USB-to-serial converter, and USB-to-JTAG converter)
This controller has the following features:
-> USB 2.0 full speed compliant, capable of up to 12 Mbit/s transfer speed
(Note that this controller does not support the faster 480 Mbit/s high-speed transfer mode)
-> CDC-ACM virtual serial port and JTAG adapter functionality
-> Programming the chip's flash
-> CPU debugging with compact JTAG instructions
-> A full-speed USB PHY integrated in the chip
USB
Extensions
J1
J3
+3.3V at Iout(max)=100mA, Power In/Out!
+3.3V Power In/Out
+5V Only!!! Power In/Out
Extension's pinout is fully compatible to the Espressif's ESP32-H2-DevKitM-1.
Reset Button
USER Button
QWST Connector
QWIIC Compatible!
OLIMEX
https://www.olimex.com/
OLIMEX LTD.
open source hardware
Sheet: /
File: ESP32-H2-DevKit-LiPo_Rev_A.kicad_sch
Title: ESP32-H2-DevKit-LiPo
Size: A3
Date: 2023-11-29
Rev: A
KiCad E.D.A. kicad 7.0.9-7.0.9~ubuntu22.04.1
Id: 1/1