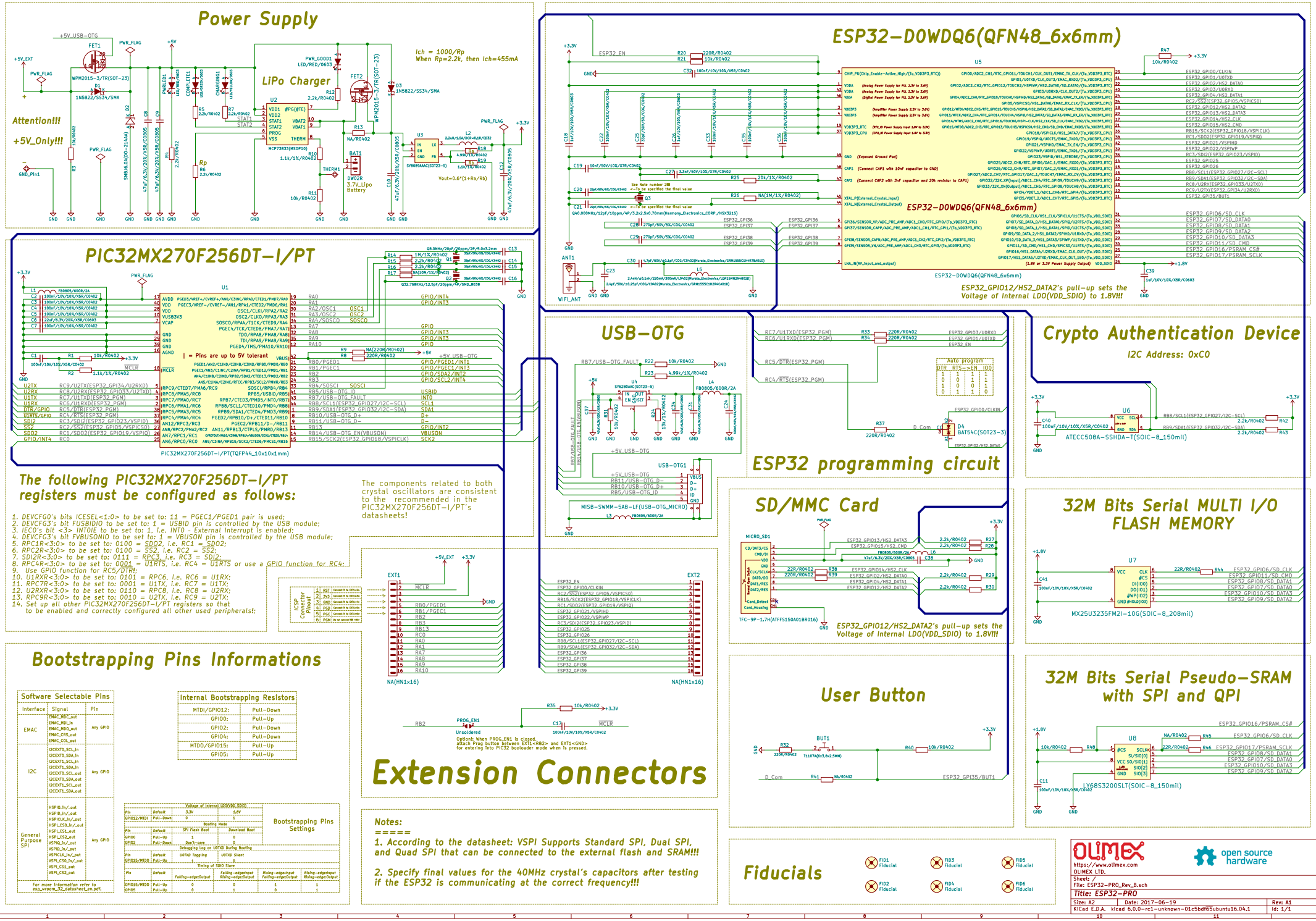
Power Supply
LiPo Charger
Ich = 1000/Rp
When Rp=2.2k, then Ich=455mA
Attention!!!
+5V_Only!!!
ESP32-D0WDQ6(QFN48_6x6mm)
ESP32_GPIO12/HS2_DATA2's pull-up sets the Voltage of Internal LDO(VDD_SDIO) to 1.8V!!!
PIC32MX270F256DT-I/PT
PIC32MX270F256DT-I/PT(TQFP44_10x10x1mm)
USB-OTG
Crypto Authentication Device
I2C Address: 0xC0
ATECC508A-SSHDA-T(SOIC-8_150mil)
ESP32 programming circuit
SD/MMC Card
32M Bits Serial MULTI I/O FLASH MEMORY
MX25U3235FM2I-10G(SOIC-8_208mil)
User Button
32M Bits Serial Pseudo-SRAM with SPI and QPI
LY68S3200SLT(SOIC-8_150mil)
Fiducials
Bootstrapping Pins Informations
Extension Connectors
The following PIC32MX270F256DT-I/PT registers must be configured as follows:
1. DEVCFG0's bits ICESEL<1:0> to be set to: 11 = PGEC1/PGED1 pair is used;
2. DEVCFG3's bit FUSBIDIO to be set to: 1 = USBID pin is controlled by the USB module;
3. IEC0's bit <3> INT0IE to be set to: 1, i.e. INT0 - External Interrupt is enabled;
4. DEVCFG3's bit FVBUSONIO to be set to: 1 = VBUSON pin is controlled by the USB module;
5. RPC1R<3:0> to be set to: 0100 = SDO2, i.e. RC1 = SDO2;
6. RPC2R<3:0> to be set to: 0100 = SS2, i.e. RC2 = SS2;
7. SDI2R<3:0> to be set to: 0111 = RPC3, i.e. RC3 = SDI2;
8. RPC4R<3:0> to be set to: 0001 = U1RTS, i.e. RC4 = U1RTS or use a GPIO function for RC4;
9. Use GPIO function for RC5/DTR#;
10. U1RXR<3:0> to be set to: 0101 = RPC6, i.e. RC6 = U1RX;
11. RPC7R<3:0> to be set to: 0001 = U1TX, i.e. RC7 = U1TX;
12. U2RXR<3:0> to be set to: 0110 = RPC8, i.e. RC8 = U2RX;
13. RPC9R<3:0> to be set to: 0010 = U2TX, i.e. RC9 = U2TX;
14. Set up all other PIC32MX270F256DT-I/PT registers so that to be enabled and correctly configured all other used peripherals!;
The components related to both crystal oscillators are consistent to the recommended in the PIC32MX270F256DT-I/PT's datasheets!
Notes:
1. According to the datasheet: VSPI Supports Standard SPI, Dual SPI, and Quad SPI that can be connected to the external flash and SRAM!!!
2. Specify final values for the 40MHz crystal's capacitors after testing if the ESP32 is communicating at the correct frequency!!!
Software Selectable Pins
Internal Bootstrapping Resistors
Bootstrapping Pins Settings
OLIMEX
https://www.olimex.com
OLIMEX LTD.
Sheet: /
File: ESP32-PRO_Rev_B.sch
Title: ESP32-PRO
Size: A2
Date: 2017-06-19
Rev: A1
KiCad E.D.A. kicad 6.0.0-rc1-unknown-01c5bdf65ubuntu16.04.1
Id: 1/1
open source hardware