15V

D2
1N5818

DC1
R-78E5.0-0.5
VIN VOUT
GND

C1
10uF mlcc 25V

GND

C2
10uF mlcc

GND

DC/DC

3

BAT
EN

PCB1
BAT
EN
USB
GND
3V3
USB_5V
GND*3

BAT

LOLIN-D32

GND

3V3

3V3

8 3V3
U1
5 GND

C3
0.1uF cer.

bypass

GND

3V3

GND

Up chip degugging
JTAG

J6
1 2
3 4
5 6
7 8
9 10

JTAG_MS
JTAG_CK
JTAG_DO
JTAG_DI
JTAG_RST

ESP-JTAG-2X05

PCB1

IO14/JTAG_MS
IO13/JTAG_CK
IO15/JTAG_DO
IO12/JTAG_DI
RST/JTAG_RST

IO0
IO2
IO4
IO16
IO17
IO32
IO33
I34
VP/I36
VN/I39

14
13
15
12
RS

0
2
4
16
17
32
33
34
VP
VN

23
19
18
5

21
22

IO23/VSPI_MOSI
IO19/VSPI_MISO
IO18/VSPI_CLK
IO5/VSPI_CS/LED

RX0/IO3
IO21/I2C_SDA TX0/IO1
IO22/I2C_SCL

RX2/IO25
TX2/IO26
RTS2/IO27

RX
TX

GND

25
26
27

RX2
TX
RTS

USB

LOLIN-D32

I2C pins don't have pull-up resistors
USB Serial uses IO3 for RX0, and IO1 for TX0
Read the BAT voltage from IO35 and double it

U1
1 RO
2 RE/
3 DE
4 DI

B 7
6 A

MAX3485CSA+

OPEN
SJ1
2 1

R1
120

15V

B
A

J2
1 15V
2 A
3 B
4 GND

RS485-TERM-SPTAF

Pool Controller

GND