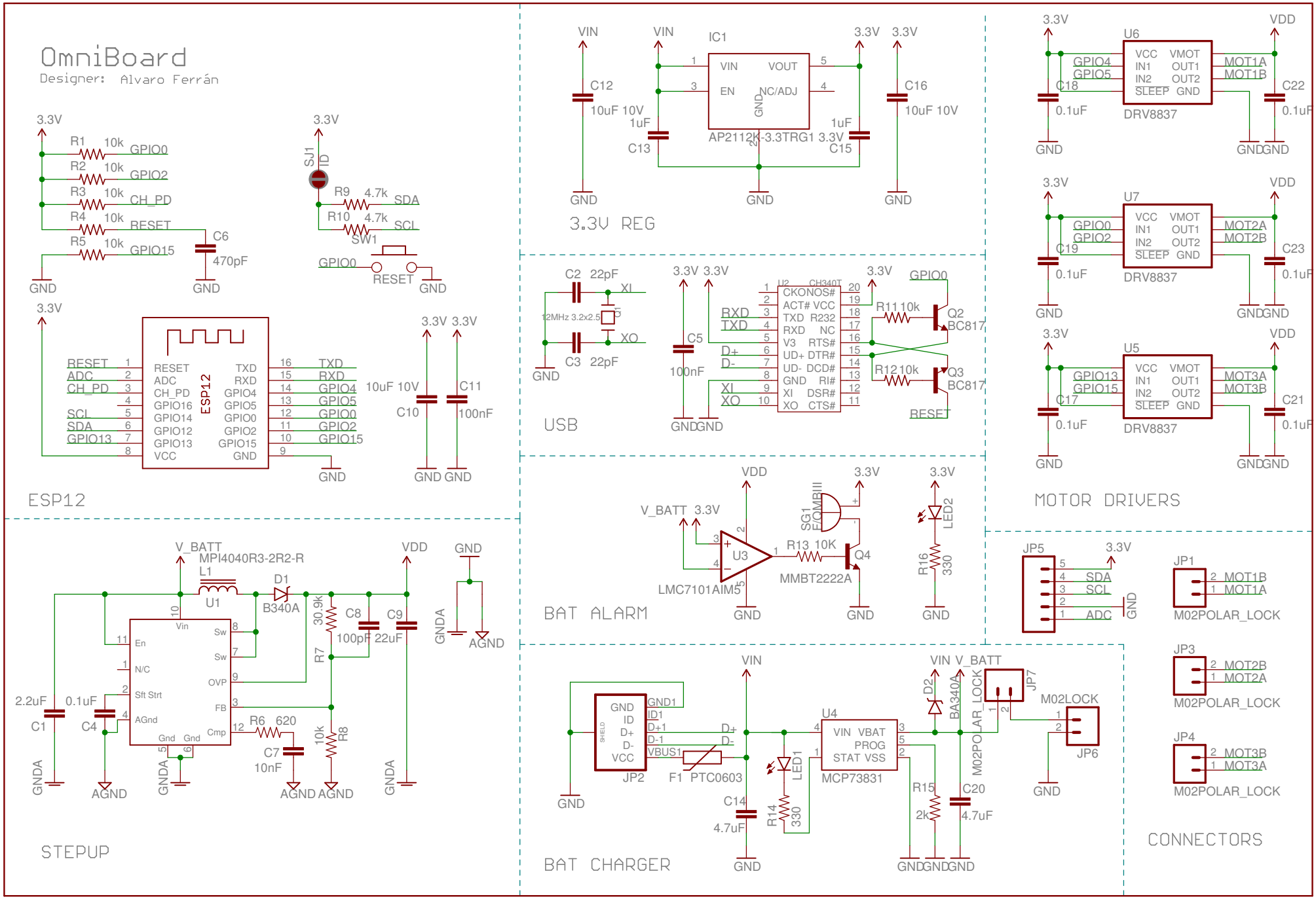
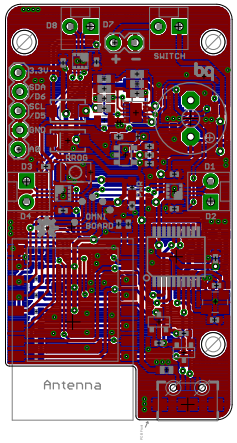

OmniBoard
Designer: Alvaro Ferrán
ESP12
3.3V REG
USB
MOTOR DRIVERS
BAT ALARM
STEPUP
BAT CHARGER
CONNECTORS
IC1
AP2112K-3.3TRG1
U2 CH340T
U6
U7
U5
DRV8837
ESP12
U1
MPI4040R3-2R2-R
B340A
U3
LMC7101AIM5
MMBT2222A
MCP73831
U4
JP2
JP5
JP1
JP3
JP4
JP6
JP7
M02POLAR_LOCK
M02LOCK
F1 PTC0603
Q2 BC817
Q3 BC817
Q4
LED1
LED2
SJ1
SW1
RESET
VIN
VDD
VOUT
EN
NC/ADJ
GND
AGND
GNDA
V_BATT
3.3V
GPIO0
GPIO2
CH_PD
GPIO15
SDA
SCL
GPIO13
GPIO4
GPIO5
MOT1A
MOT1B
MOT2A
MOT2B
MOT3A
MOT3B
GPIO12
GPIO14
TXD
RXD
ADC
VCC
VMOT
IN1
IN2
OUT1
OUT2
SLEEP
XI
XO
D+
D-
ID
VBUS1
VBAT
PROG
STAT
VSS
Vin
En
N/C
Sft Strt
AGnd
Sw
OVP
FB
Cmp
Gnd
R1 10k
R2 10k
R3 10k
R4 10k
R5 10k
R9 4.7k
R10 4.7k
R11 10k
R12 10k
R13 10K
R14 330
R15 2k
R16 330
R6 620
R7 30.9k
R8 10k
C1 2.2uF
C2 22pF
C3 22pF
C4 0.1uF
C5 100nF
C6 470pF
C7 10nF
C8 100pF
C9 22uF
C10 10uF 10V
C11 100nF
C12 10uF 10V
C13 1uF
C14 4.7uF
C15 1uF
C16 10uF 10V
C17 0.1uF
C18 0.1uF
C19 0.1uF
C20 4.7uF
C21 0.1uF
C22 0.1uF
C23 0.1uF
12MHz 3.2x2.5
D1
D2 BA340A


D8
D7
SWITCH
3.3V
SDA
/D6
SCL
/D5
GND
D3
D4
D2
OMNI
BOARD
Antenna