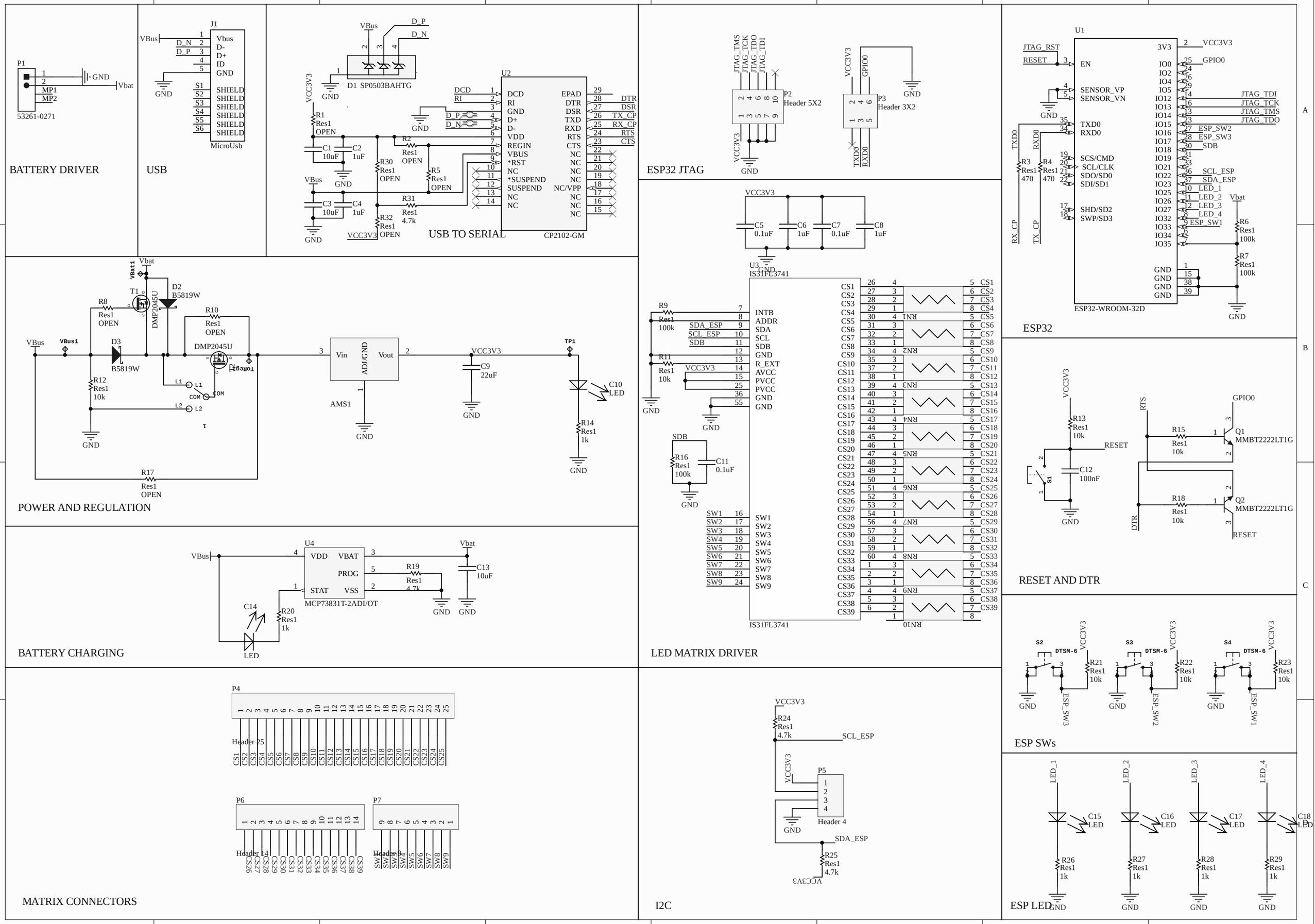
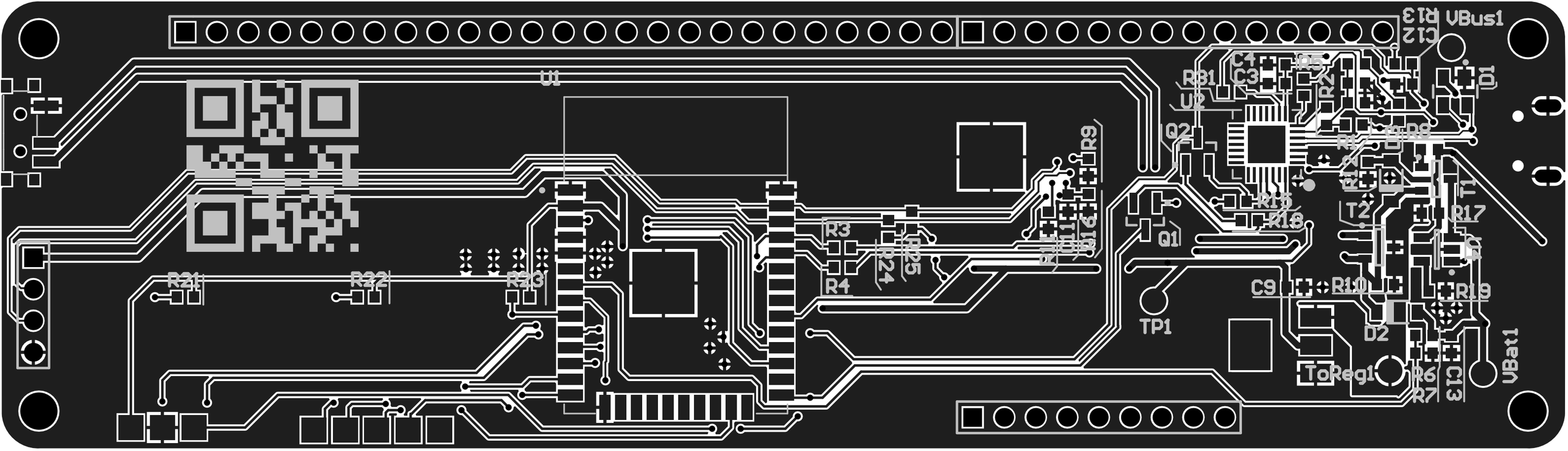
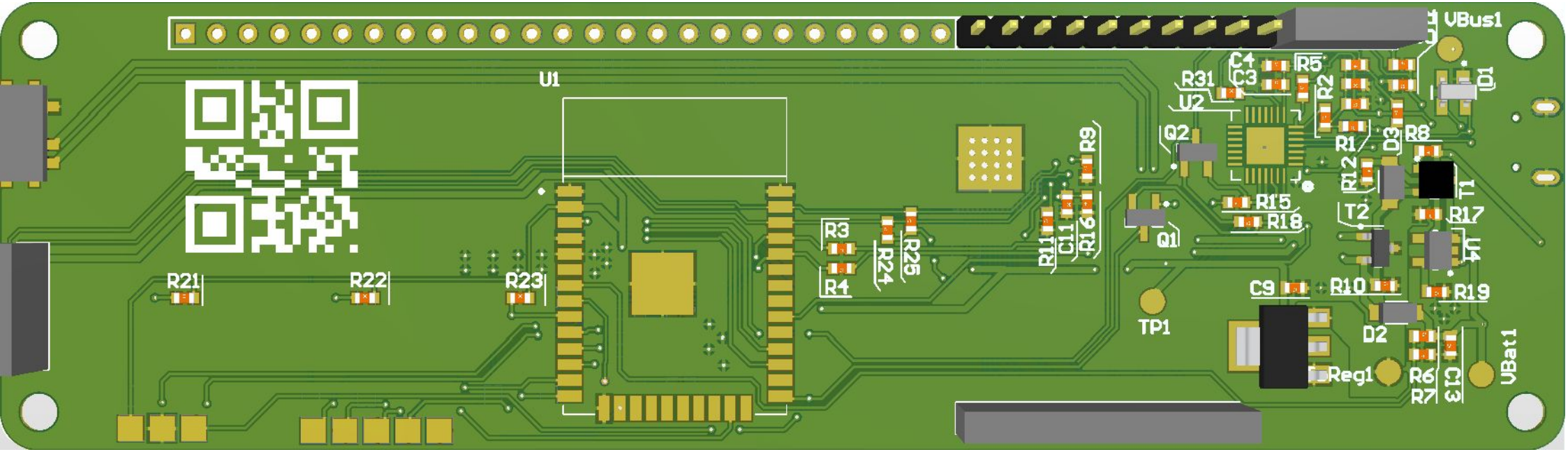
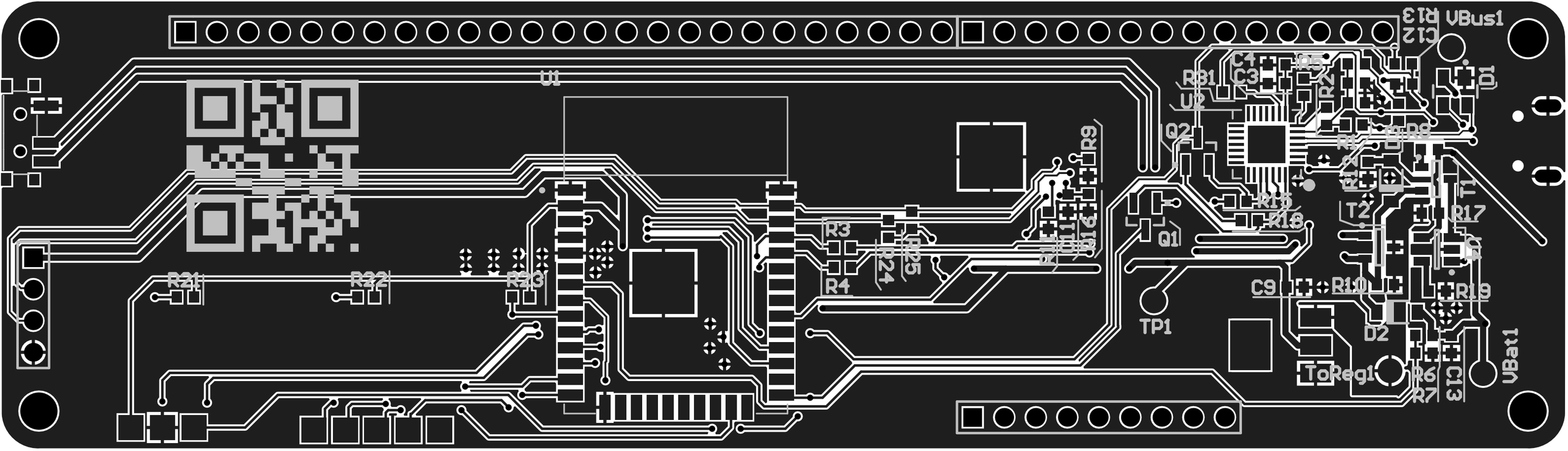

BATTERY DRIVER
P1
53261-0271
GND
Vbat
MP1
MP2
USB
J1
MicroUsb
Vbus
D-
D+
ID
GND
SHIELD
USB TO SERIAL
U2
CP2102-GM
D1 SP0503BAHTG
DCD
RI
GND
D+
D-
VDD
REGIN
VBUS
*RST
NC
*SUSPEND
SUSPEND
EPAD
DTR
DSR
TXD
RXD
RTS
CTS
NC/VPP
TX_CP
RX_CP
VCC3V3
ESP32 JTAG
P2
Header 5X2
P3
Header 3X2
JTAG_TMS
JTAG_TCK
JTAG_TDO
JTAG_TDI
GPIO0
TXD0
RXD0
ESP32
U1
ESP32-WROOM-32D
JTAG_RST
RESET
EN
3V3
SENSOR_VP
SENSOR_VN
SCS/CMD
SCL/CLK
SDO/SD0
SDI/SD1
SHD/SD2
SWP/SD3
SCL_ESP
SDA_ESP
LED_1
LED_2
LED_3
LED_4
ESP_SW1
ESP_SW2
ESP_SW3
POWER AND REGULATION
T1
DMP2045U
D2
B5819W
D3
B5819W
R8
R10
R12
R17
VBus1
TOREGT
Vin
ADJ/GND
Vout
AMS1
C9
22uF
TP1
C10
LED
R14
1k
BATTERY CHARGING
U4
MCP73831T-2ADI/OT
VDD
VBAT
PROG
STAT
VSS
R19
C13
10uF
C14
LED
R20
1k
LED MATRIX DRIVER
U3
IS31FL3741
INTB
ADDR
SDA
SCL
SDB
GND
R_EXT
AVCC
PVCC
R9
R11
R16
C11
0.1uF
C5
0.1uF
C6
1uF
C7
0.1uF
C8
1uF
RESET AND DTR
R13
10k
C12
100nF
S1
R15
R18
Q1
MMBT2222LT1G
Q2
MMBT2222LT1G
DTR
RTS
ESP SWs
S2
S3
S4
DTSM-6
R21
R22
R23
ESP LEDs
C15
C16
C17
C18
R26
R27
R28
R29
MATRIX CONNECTORS
P4
Header 25
P6
Header 14
P7
Header 9
I2C
P5
Header 4
R24
R25
SCL_ESP
SDA_ESP


U1
R21
R22
R23
R3
R4
R24
R5
R9
R11
R12
R16
R14
Q1
Q2
U2
R31
C4
C3
R2
R8
R13
C12
VBus1
D1
R6
T1
T2
R15
R18
R17
C9
R10
R19
TP1
D2
ToReg1
R7
C13
VBat1


VBus1
U1
C4
C3
R5
R31
U2
R2
D1
Q2
R1
D3
R8
R12
T1
R15
R18
T2
R17
U4
R3
R4
R24
R25
R11
C11
R16
R9
Q1
R21
R22
R23
C9
R10
R19
TP1
D2
Reg1
R6
R7
C13
VBat1


U1
R21
R22
R23
R3
R4
R24
R5
R9
R11
R12
R16
R14
Q1
Q2
U2
R31
C4
C3
R2
R8
R13
C12
VBus1
D1
R6
T1
T2
R15
R18
R17
C9
R10
R19
TP1
D2
ToReg1
R7
C13
VBat1