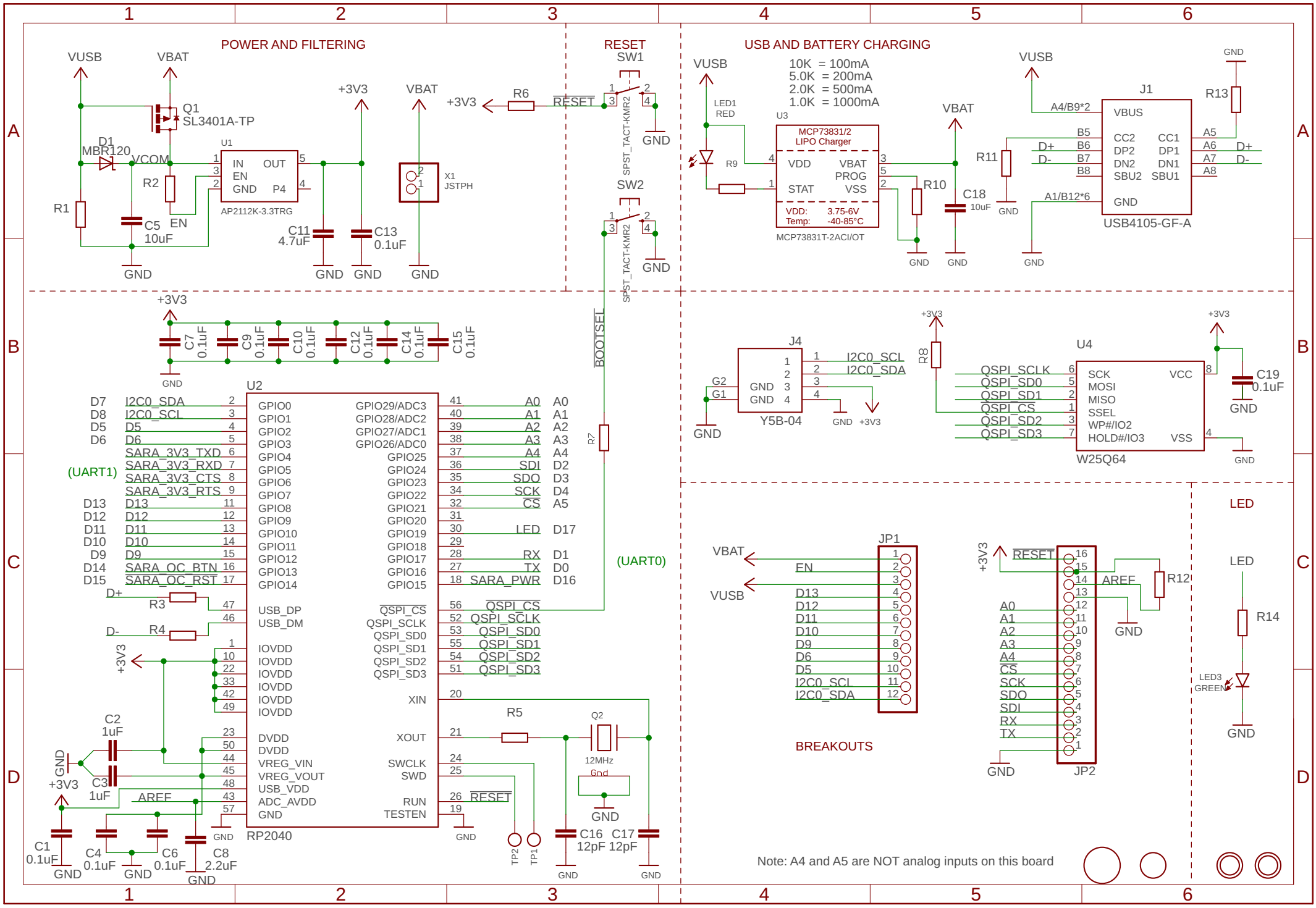
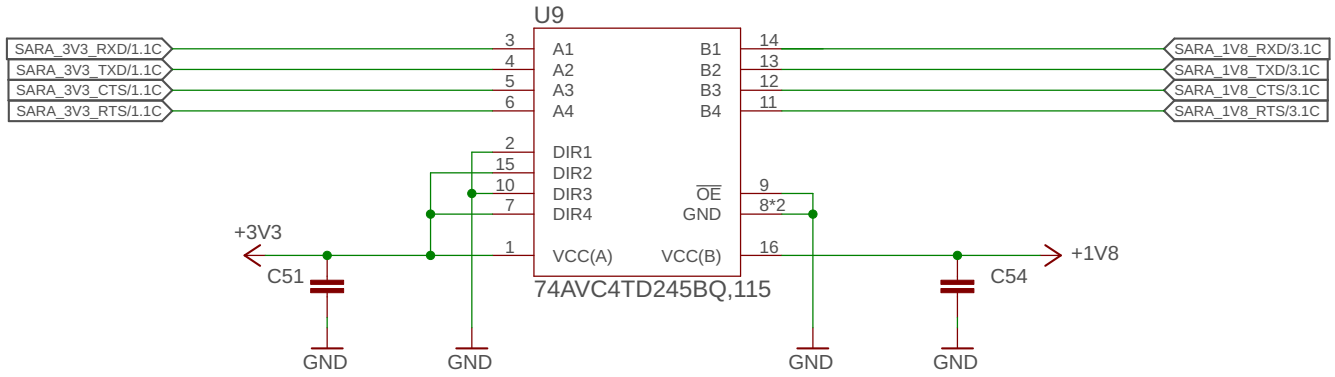

POWER AND FILTERING
RESET
USB AND BATTERY CHARGING
VUSB
VBAT
+3V3
GND
Q1
SL3401A-TP
D1
MBR120
VCOM
R1
R2
C5
10uF
EN
U1
IN
OUT
EN
GND
P4
AP2112K-3.3TRG
C11
4.7uF
C13
0.1uF
X1
JSTPH
R6
RESET
SW1
SW2
SPST_TACT-KMR2
10K = 100mA
5.0K = 200mA
2.0K = 500mA
1.0K = 1000mA
LED1
RED
R9
U3
MCP73831/2
LIPO Charger
VDD
VBAT
PROG
STAT
VSS
VDD: 3.75-6V
Temp: -40-85°C
MCP73831T-2ACI/OT
R10
C18
10uF
R11
R13
J1
VBUS
CC2
CC1
DP2
DP1
DN2
DN1
SBU2
SBU1
A4/B9*2
B5
D+
B6
D-
B7
B8
A1/B12*6
A5
A6
A7
A8
USB4105-GF-A
C7
0.1uF
C9
0.1uF
C10
0.1uF
C12
0.1uF
C14
0.1uF
C15
0.1uF
BOOTSEL
R7
U2
RP2040
GPIO0
GPIO1
GPIO2
GPIO3
GPIO4
GPIO5
GPIO6
GPIO7
GPIO8
GPIO9
GPIO10
GPIO11
GPIO12
GPIO13
GPIO14
GPIO15
GPIO16
GPIO17
GPIO18
GPIO19
GPIO20
GPIO21
GPIO22
GPIO23
GPIO24
GPIO25
GPIO26/ADC0
GPIO27/ADC1
GPIO28/ADC2
GPIO29/ADC3
D7 I2C0_SDA
D8 I2C0_SCL
D5 D5
D6 D6
SARA_3V3_TXD
SARA_3V3_RXD
SARA_3V3_CTS
SARA_3V3_RTS
(UART1)
D13 D13
D12 D12
D11 D11
D10 D10
D9 D9
D14 SARA_OC_BTN
D15 SARA_OC_RST
A0 A0
A1 A1
A2 A2
A3 A3
A4 A4
SDI D2
SDO D3
SCK D4
CS A5
LED D17
RX D1
TX D0
SARA_PWR D16
(UART0)
D+
D-
R3
R4
USB_DP
USB_DM
IOVDD
DVDD
VREG_VIN
VREG_VOUT
USB_VDD
ADC_AVDD
QSPI_CS
QSPI_SCLK
QSPI_SD0
QSPI_SD1
QSPI_SD2
QSPI_SD3
XIN
XOUT
SWCLK
SWD
RUN
TESTEN
R5
Q2
12MHz
C1 0.1uF
C2 1uF
C3 1uF
C4 0.1uF
C6 0.1uF
C8 2.2uF
C16 12pF
C17 12pF
AREF
TP1
TP2
J4
G2
G1
Y5B-04
I2C0_SCL
I2C0_SDA
R8
U4
W25Q64
QSPI_SCLK
QSPI_SD0
QSPI_SD1
QSPI_CS
QSPI_SD2
QSPI_SD3
SCK
MOSI
MISO
SSEL
WP#/IO2
HOLD#/IO3
VCC
VSS
C19
0.1uF
JP1
JP2
BREAKOUTS
LED
R14
LED3
GREEN
Note: A4 and A5 are NOT analog inputs on this board



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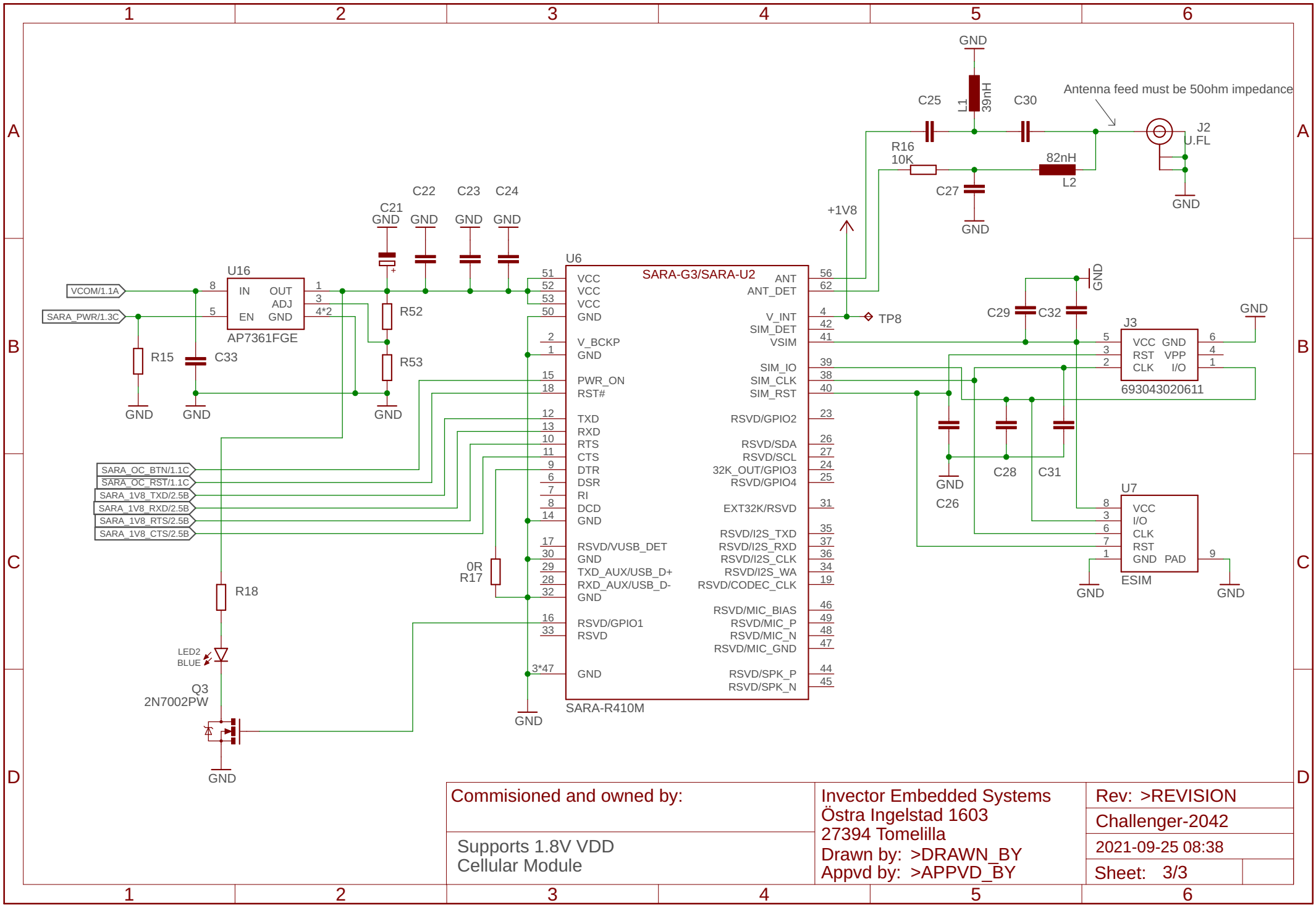
		Challenger-2042
Level Shifters	Drawn by: >DRAWN_BY Appvd by: >APPVD_BY	2021-09-25 08:38
		Sheet: 2/3



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Supports 1.8V VDD Cellular Module		