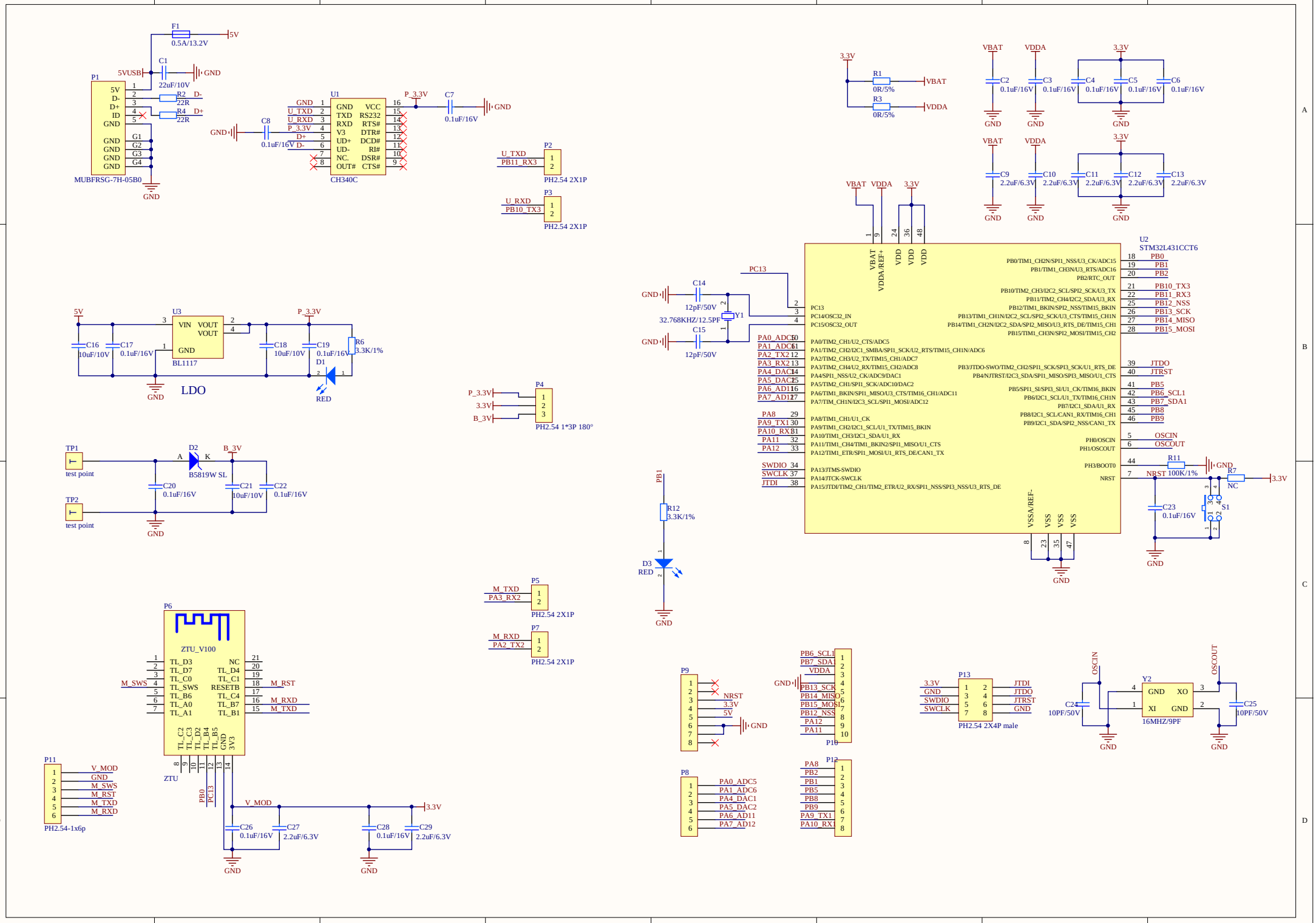
F1
0.5A/13.2V
5V
C1
22uF/10V
GND
P1
5VUSB
5V
D-
D+
ID
GND
R2 22R
R4 22R
MUBFRSG-7H-05B0
U1
CH340C
GND
TXD
RXD
V3
UD+
UD-
NC.
OUT#
VCC
RS232
RTS#
DTR#
DCD#
RI#
DSR#
CTS#
P_3.3V
C7
0.1uF/16V
C8
0.1uF/16V
P2
U_TXD
PB11_RX3
PH2.54 2X1P
P3
U_RXD
PB10_TX3
U3
BL1117
VIN
VOUT
C16 10uF/10V
C17 0.1uF/16V
C18 10uF/10V
C19 0.1uF/16V
R6 3.3K/1%
D1
RED
LDO
P4
B_3V
PH2.54 1*3P 180°
TP1
test point
TP2
D2
B5819W SL
C20 0.1uF/16V
C21 10uF/10V
C22 0.1uF/16V
P5
M_TXD
PA3_RX2
P7
M_RXD
PA2_TX2
P6
ZTU_V100
TL_D3
TL_D7
TL_C0
TL_SWS
TL_B6
TL_A0
TL_A1
NC
TL_D4
TL_C1
RESETB
TL_C4
TL_B7
TL_B1
M_SWS
M_RST
M_RXD
M_TXD
TL_C2
TL_C3
TL_D2
TL_B4
TL_B5
GND
3V3
ZTU
PB0
PC13
V_MOD
C26 0.1uF/16V
C27 2.2uF/6.3V
C28 0.1uF/16V
C29 2.2uF/6.3V
P11
V_MOD
GND
M_SWS
M_RST
M_TXD
M_RXD
PH2.54-1x6p
R1 0R/5%
R3 0R/5%
VBAT
VDDA
C2 0.1uF/16V
C3 0.1uF/16V
C4 0.1uF/16V
C5 0.1uF/16V
C6 0.1uF/16V
C9 2.2uF/6.3V
C10 2.2uF/6.3V
C11 2.2uF/6.3V
C12 2.2uF/6.3V
C13 2.2uF/6.3V
U2
STM32L431CCT6
VBAT
VDDA/REF+
VDD
VSSA/REF-
VSS
PC13
PC14/OSC32_IN
PC15/OSC32_OUT
C14 12pF/50V
C15 12pF/50V
Y1
32.768KHZ/12.5PF
PA0_ADC5
PA1_ADC6
PA2_TX2
PA3_RX2
PA4_DAC1
PA5_DAC2
PA6_AD11
PA7_AD12
PA8
PA9_TX1
PA10_RX1
PA11
PA12
SWDIO
SWCLK
JTDI
PB0
PB1
PB10_TX3
PB11_RX3
PB12_NSS
PB13_SCK
PB14_MISO
PB15_MOSI
JTDO
JTRST
PB5
PB6_SCL1
PB7_SDA1
PB8
PB9
OSCIN
OSCOUT
NRST
R11 100K/1%
R7 NC
S1
C23 0.1uF/16V
PB1
R12 3.3K/1%
D3
RED
P9
NRST
3.3V
5V
P10
PB6_SCL1
PB7_SDA1
VDDA
PB13_SCK
PB14_MISO
PB15_MOSI
PB12_NSS
P8
PA0_ADC5
PA1_ADC6
PA4_DAC1
PA5_DAC2
PA6_AD11
PA7_AD12
P12
PA8
PB2
PB1
PB5
PB8
PB9
PA9_TX1
PA10_RX1
P13
3.3V
GND
SWDIO
SWCLK
JTDI
JTDO
JTRST
PH2.54 2X4P male
Y2
16MHZ/9PF
C24 10PF/50V
C25 10PF/50V