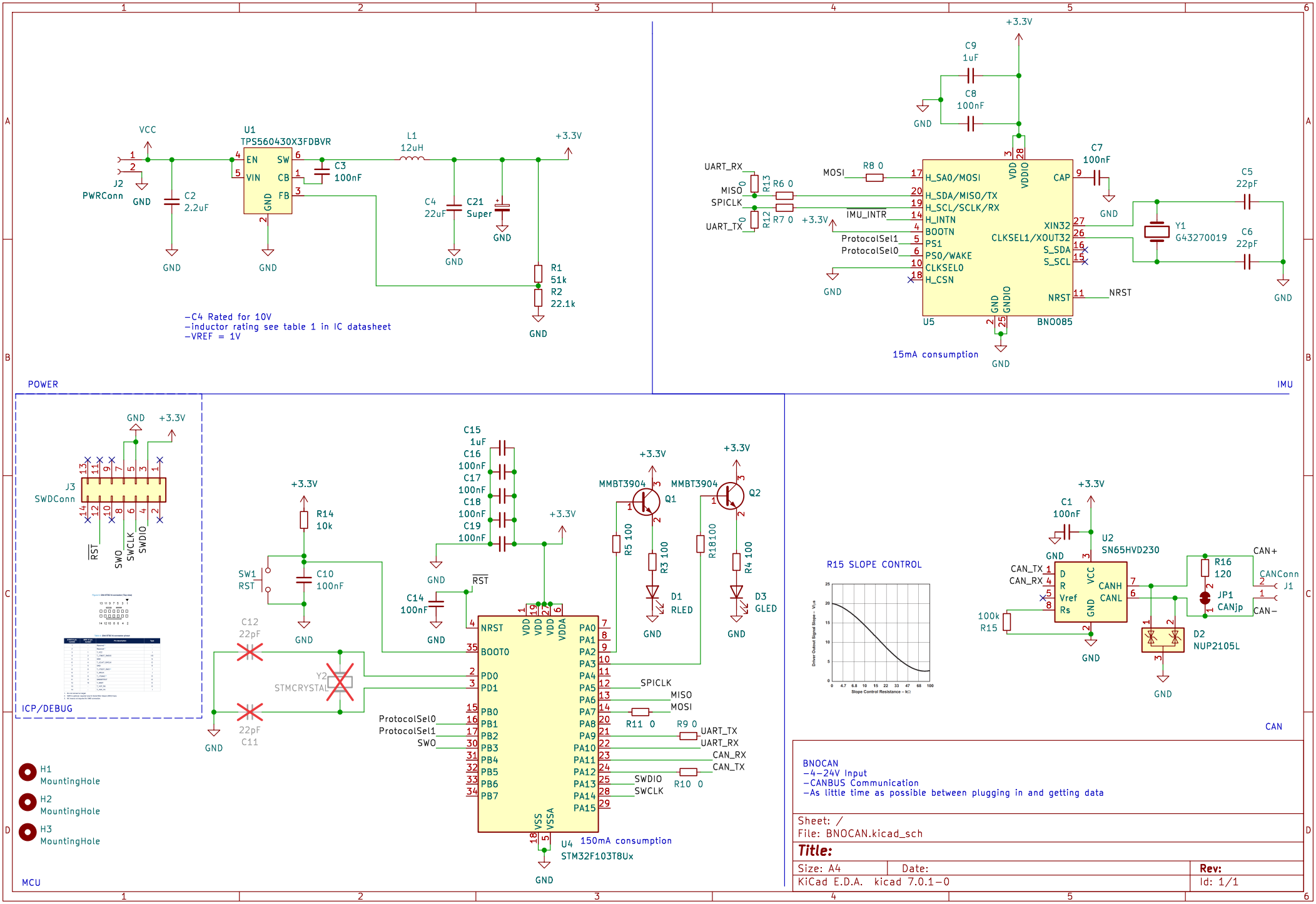
POWER
VCC
J2
PWRConn
GND
C2
2.2uF
U1
TPS560430X3FDBVR
EN
VIN
SW
CB
FB
GND
C3
100nF
L1
12uH
+3.3V
C4
22uF
C21
Super
R1
51k
R2
22.1k
-C4 Rated for 10V
-inductor rating see table 1 in IC datasheet
-VREF = 1V
IMU
C9
1uF
C8
100nF
UART_RX
MISO
SPICLK
UART_TX
R13 0
R6 0
R12 0
R7 0
MOSI
R8 0
IMU_INTR
ProtocolSel1
ProtocolSel0
H_SA0/MOSI
H_SDA/MISO/TX
H_SCL/SCLK/RX
H_INTN
BOOTN
PS1
PS0/WAKE
CLKSEL0
H_CSN
VDD
VDDIO
CAP
XIN32
CLKSEL1/XOUT32
S_SDA
S_SCL
NRST
GND
GNDIO
U5
BNO085
C7
100nF
C5
22pF
C6
22pF
Y1
G43270019
15mA consumption
ICP/DEBUG
J3
SWDConn
RST
SWO
SWCLK
SWDIO
MCU
R14
10k
SW1
RST
C10
100nF
C12
22pF
C11
22pF
Y2
STMCRYSTAL
C15
1uF
C16
100nF
C17
100nF
C18
100nF
C19
100nF
C14
100nF
MMBT3904
Q1
Q2
R5 100
R3 100
R18100
R4 100
D1
RLED
D3
GLED
NRST
BOOT0
PD0
PD1
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
VDD
VDDA
VSS
VSSA
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA15
SPICLK
MISO
MOSI
R11 0
R9 0
R10 0
UART_TX
UART_RX
CAN_RX
CAN_TX
SWDIO
SWCLK
ProtocolSel0
ProtocolSel1
SWO
U4
STM32F103T8Ux
150mA consumption
H1
MountingHole
H2
MountingHole
H3
MountingHole
R15 SLOPE CONTROL
Driver Output Signal Slope – V/µs
Slope Control Resistance – kΩ
CAN
C1
100nF
U2
SN65HVD230
CAN_TX
CAN_RX
D
R
Vref
Rs
VCC
CANH
CANL
100k
R15
R16
120
JP1
CANjp
CAN+
CAN−
CANConn
J1
D2
NUP2105L
BNOCAN
-4-24V Input
-CANBUS Communication
-As little time as possible between plugging in and getting data
Sheet: /
File: BNOCAN.kicad_sch
Title:
Size: A4
Date:
Rev:
KiCad E.D.A. kicad 7.0.1-0
Id: 1/1