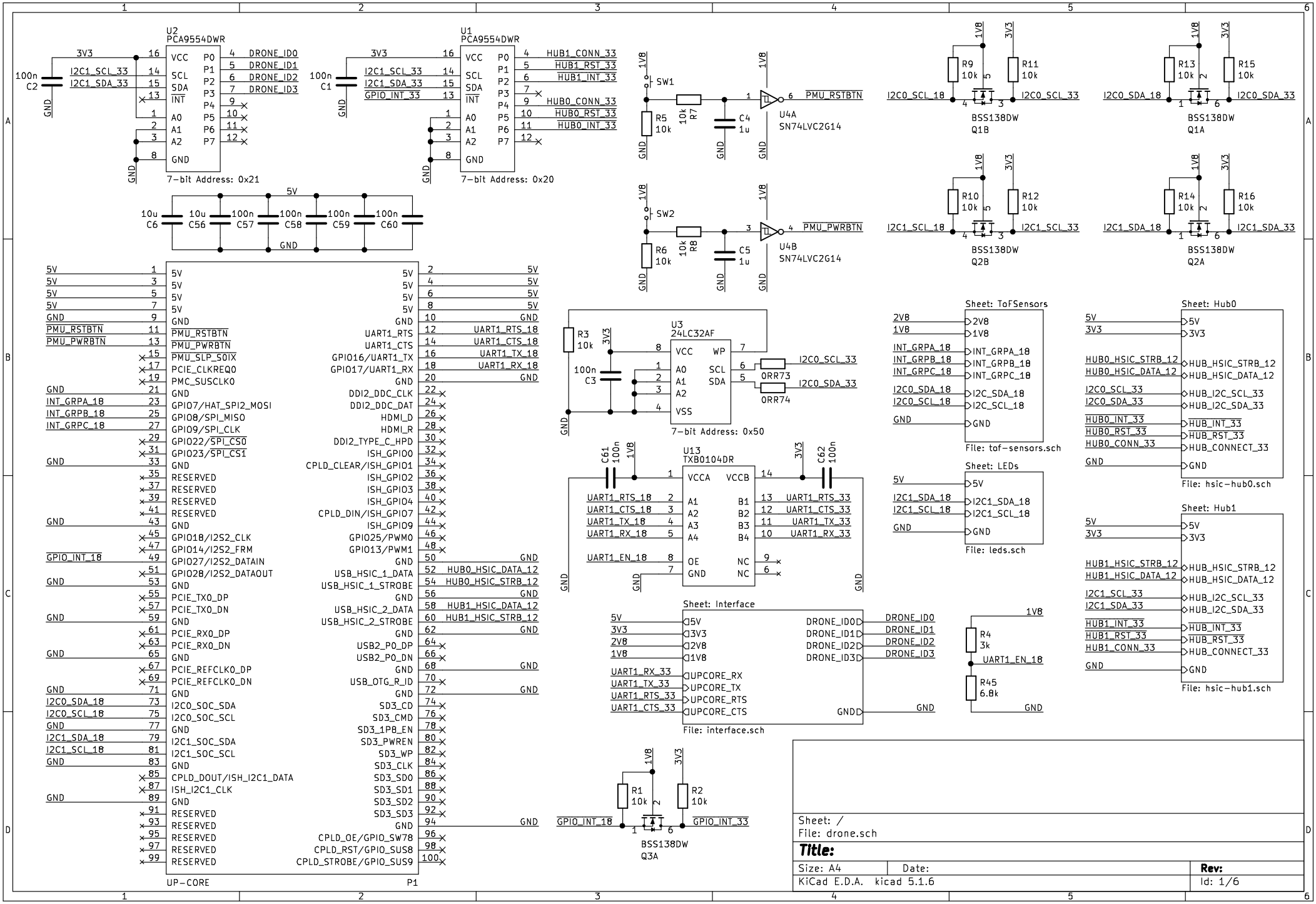
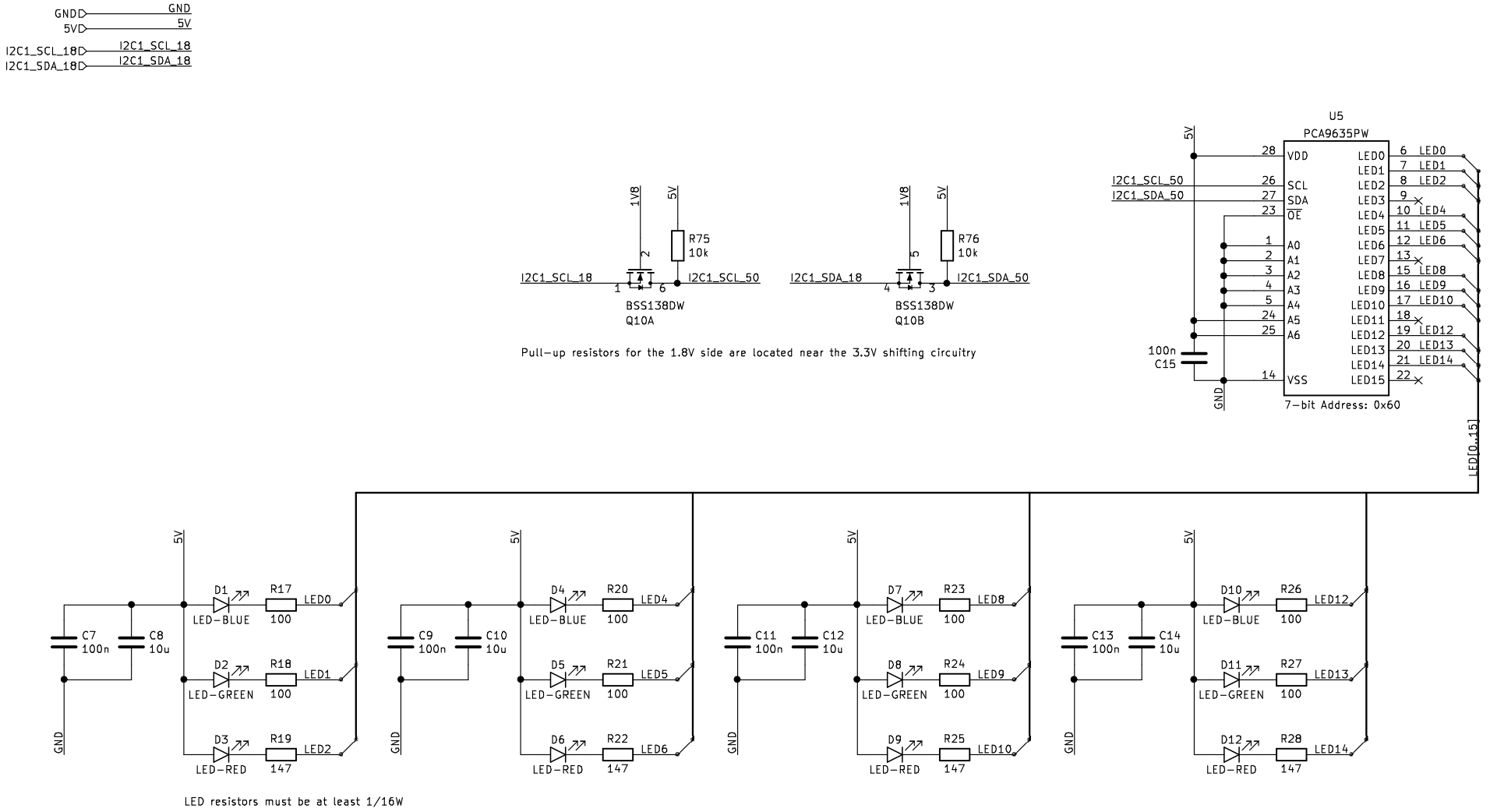
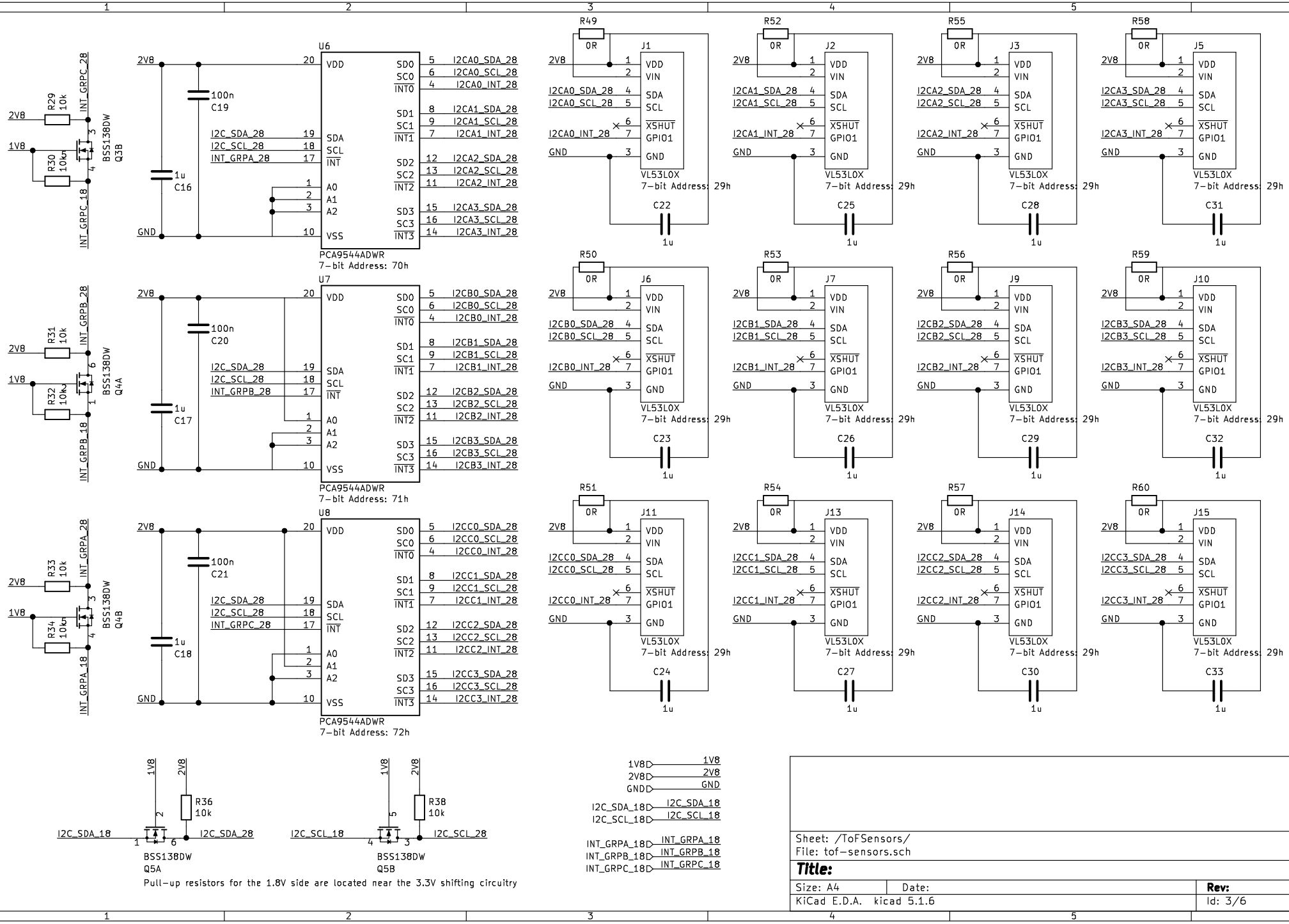
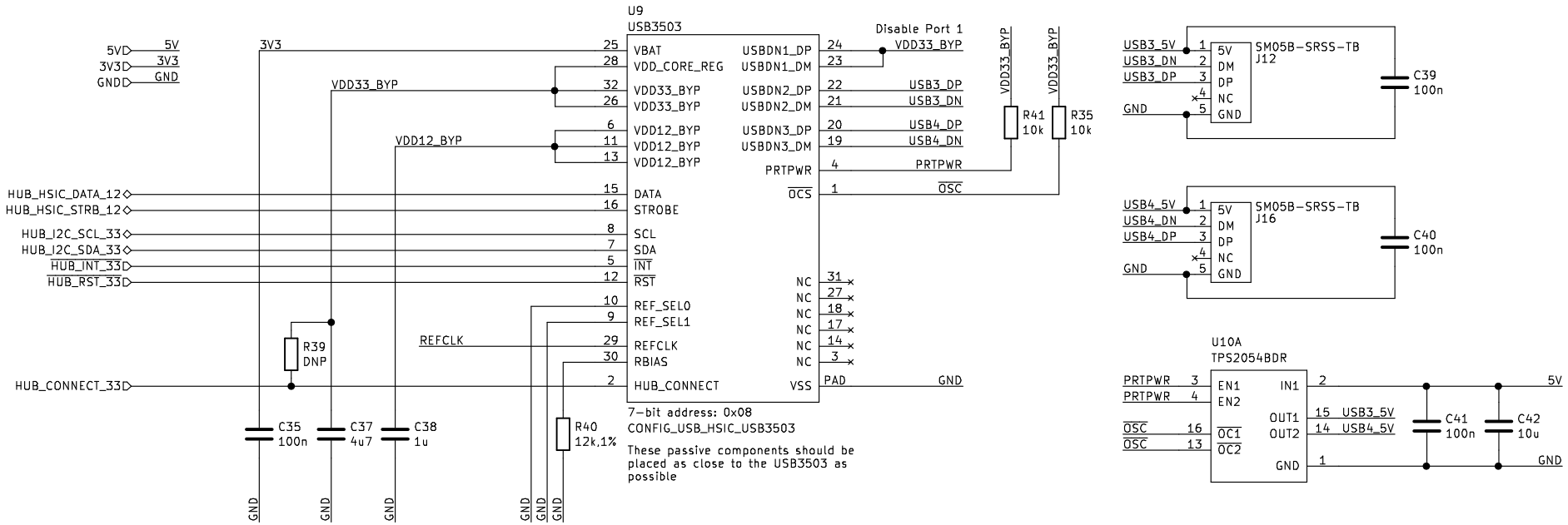
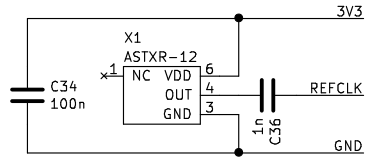

U2
PCA9554DWR
3V3
100n
C2
I2C1_SCL_33
I2C1_SDA_33
GND
VCC
SCL
SDA
INT
A0
A1
A2
GND
P0
P1
P2
P3
P4
P5
P6
P7
DRONE_ID0
DRONE_ID1
DRONE_ID2
DRONE_ID3
7-bit Address: 0x21
U1
PCA9554DWR
100n
C1
I2C1_SCL_33
I2C1_SDA_33
GPIO_INT_33
HUB1_CONN_33
HUB1_RST_33
HUB1_INT_33
HUB0_CONN_33
HUB0_RST_33
HUB0_INT_33
7-bit Address: 0x20
5V
10u
C6
10u
C56
100n
C57
100n
C58
100n
C59
100n
C60
SW1
SW2
R5
10k
R6
10k
10k
R7
10k
R8
C4
1u
C5
1u
U4A
SN74LVC2G14
U4B
SN74LVC2G14
PMU_RSTBTN
PMU_PWRBTN
1V8
3V3
R9
10k
R11
10k
R13
10k
R15
10k
R10
10k
R12
10k
R14
10k
R16
10k
I2C0_SCL_18
I2C0_SCL_33
I2C0_SDA_18
I2C0_SDA_33
I2C1_SCL_18
I2C1_SCL_33
I2C1_SDA_18
I2C1_SDA_33
BSS138DW
Q1B
BSS138DW
Q1A
BSS138DW
Q2B
BSS138DW
Q2A
UP-CORE
P1
5V
3V3
2V8
1V8
GND
PMU_RSTBTN
PMU_PWRBTN
PMU_SLP_S0IX
PCIE_CLKREQ0
PMC_SUSCLK0
INT_GRPA_18
INT_GRPB_18
INT_GRPC_18
GPIO_INT_18
I2C0_SDA_18
I2C0_SCL_18
I2C1_SDA_18
I2C1_SCL_18
CPLD_DOUT/ISH_I2C1_DATA
ISH_I2C1_CLK
RESERVED
GPIO7/HAT_SPI2_MOSI
GPIO8/SPI_MISO
GPIO9/SPI_CLK
GPIO22/SPI_CS0
GPIO23/SPI_CS1
GPIO18/I2S2_CLK
GPIO14/I2S2_FRM
GPIO27/I2S2_DATAIN
GPIO28/I2S2_DATAOUT
PCIE_TX0_DP
PCIE_TX0_DN
PCIE_RX0_DP
PCIE_RX0_DN
PCIE_REFCLK0_DP
PCIE_REFCLK0_DN
UART1_RTS
UART1_CTS
GPIO16/UART1_TX
GPIO17/UART1_RX
DDI2_DDC_CLK
DDI2_DDC_DAT
HDMI_D
HDMI_R
DDI2_TYPE_C_HPD
ISH_GPIO0
CPLD_CLEAR/ISH_GPIO1
ISH_GPIO2
ISH_GPIO3
ISH_GPIO4
CPLD_DIN/ISH_GPIO7
ISH_GPIO9
GPIO25/PWM0
GPIO13/PWM1
USB_HSIC_1_DATA
USB_HSIC_1_STROBE
USB_HSIC_2_DATA
USB_HSIC_2_STROBE
USB2_P0_DP
USB2_P0_DN
USB_OTG_R_ID
SD3_CD
SD3_CMD
SD3_1P8_EN
SD3_PWREN
SD3_WP
SD3_CLK
SD3_SD0
SD3_SD1
SD3_SD2
SD3_SD3
CPLD_OE/GPIO_SW78
CPLD_RST/GPIO_SUS8
CPLD_STROBE/GPIO_SUS9
HUB0_HSIC_DATA_12
HUB0_HSIC_STRB_12
HUB1_HSIC_DATA_12
HUB1_HSIC_STRB_12
R3
10k
100n
C3
U3
24LC32AF
VCC
WP
A0
A1
A2
VSS
SCL
SDA
0R73
0R74
7-bit Address: 0x50
C61
100n
C62
100n
U13
TXB0104DR
VCCA
VCCB
OE
NC
UART1_RTS_18
UART1_CTS_18
UART1_TX_18
UART1_RX_18
UART1_EN_18
UART1_RTS_33
UART1_CTS_33
UART1_TX_33
UART1_RX_33
Sheet: Interface
UPCORE_RX
UPCORE_TX
UPCORE_RTS
UPCORE_CTS
File: interface.sch
R4
3k
R45
6.8k
R1
10k
R2
10k
BSS138DW
Q3A
Sheet: ToFSensors
File: tof-sensors.sch
Sheet: LEDs
File: leds.sch
Sheet: Hub0
File: hsic-hub0.sch
Sheet: Hub1
File: hsic-hub1.sch
Sheet: /
File: drone.sch
Title:
Size: A4
Date:
Rev:
KiCad E.D.A. kicad 5.1.6
Id: 1/6



Sheet: /LEDs/		
File: leds.sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 5.1.6		Id: 2/6


U6
PCA9544ADWR
7-bit Address: 70h
U7
PCA9544ADWR
7-bit Address: 71h
U8
PCA9544ADWR
7-bit Address: 72h
BSS138DW
Q3B
Q4A
Q4B
Q5A
Q5B
R29 10k
R30 10k
R31 10k
R32 10k
R33 10k
R34 10k
R36 10k
R38 10k
100n C19
1u C16
100n C20
1u C17
100n C21
1u C18
R49 0R
R52 0R
R55 0R
R58 0R
R50 0R
R53 0R
R56 0R
R59 0R
R51 0R
R54 0R
R57 0R
R60 0R
J1
J2
J3
J5
J6
J7
J9
J10
J11
J13
J14
J15
VL53L0X
7-bit Address: 29h
C22
C25
C28
C31
C23
C26
C29
C32
C24
C27
C30
C33
1u
Pull-up resistors for the 1.8V side are located near the 3.3V shifting circuitry
Sheet: /ToFSensors/
File: tof-sensors.sch
Title:
Size: A4
Date:
Rev:
KiCad E.D.A. kicad 5.1.6
Id: 3/6





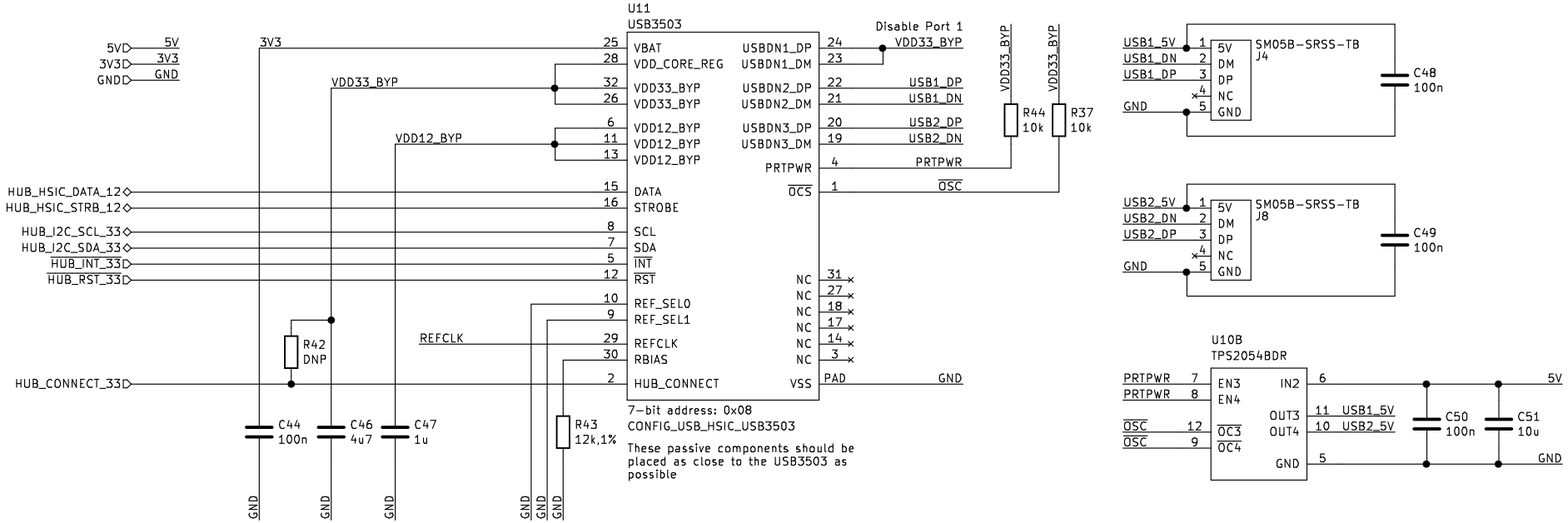
Check datasheet for correct placement of bypass and filter capacitors

Voltage levels:
HSIC STROBE/DATA: 1.2V
RESET: 3.3V
OSC: 3.3V
REFCLK: 3.3V
HUB_CONNECT: 3.3V
IO PINS (SDA, SCL): 1.8V
SDA,SCL: variable (1.8V min, can be pulled up to 3.3V)

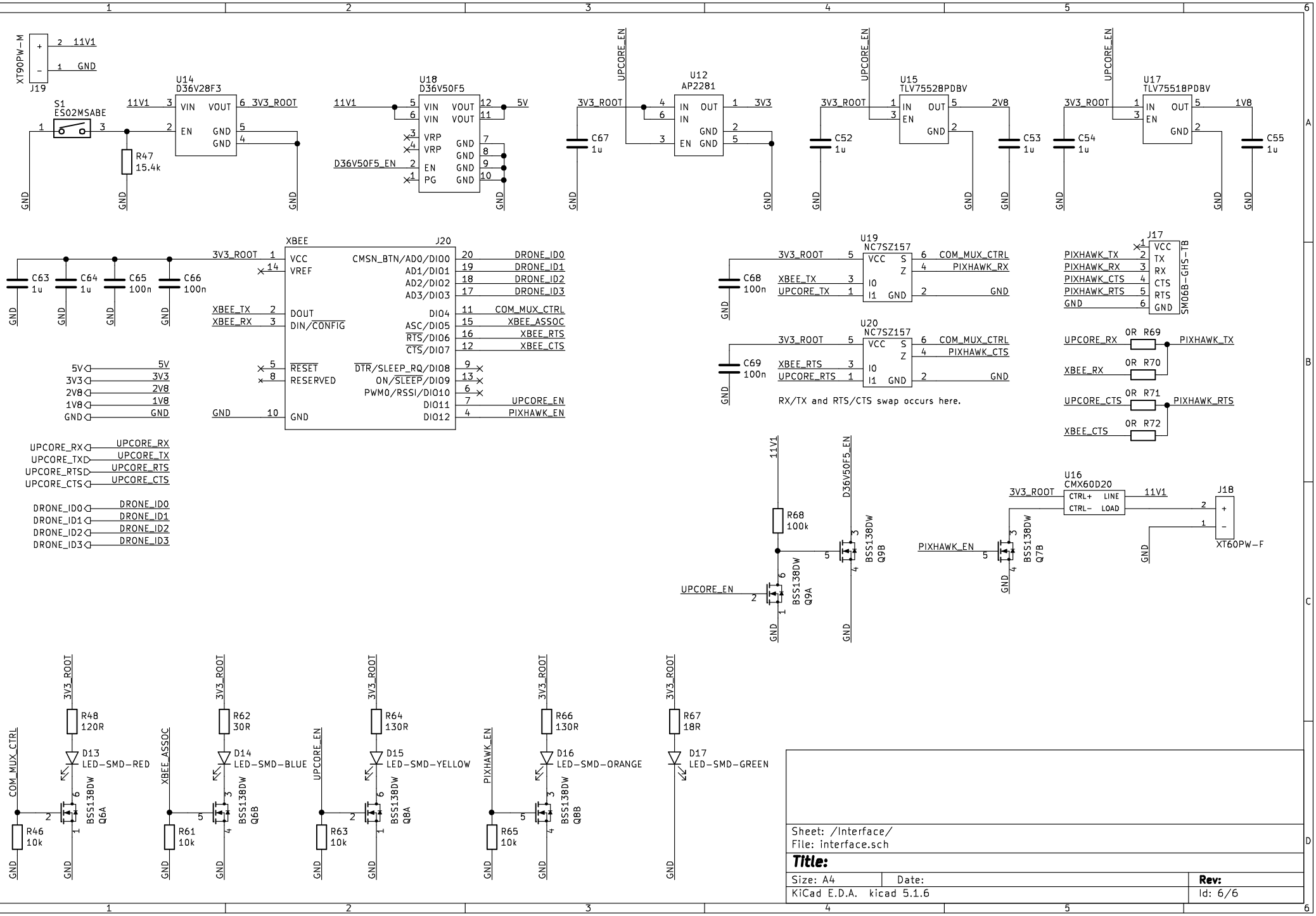
Sheet: /Hub1/
File: hsic-hub1.sch

Title:

Size: A4 | Date: | **Rev:**
KiCad E.D.A. kicad 5.1.6 | Id: 4/6



Sheet: /Hub0/		
File: hsic-hub0.sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 5.1.6		Id: 5/6



Sheet: /Interface/
File: interface.sch

Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 5.1.6		Id: 6/6