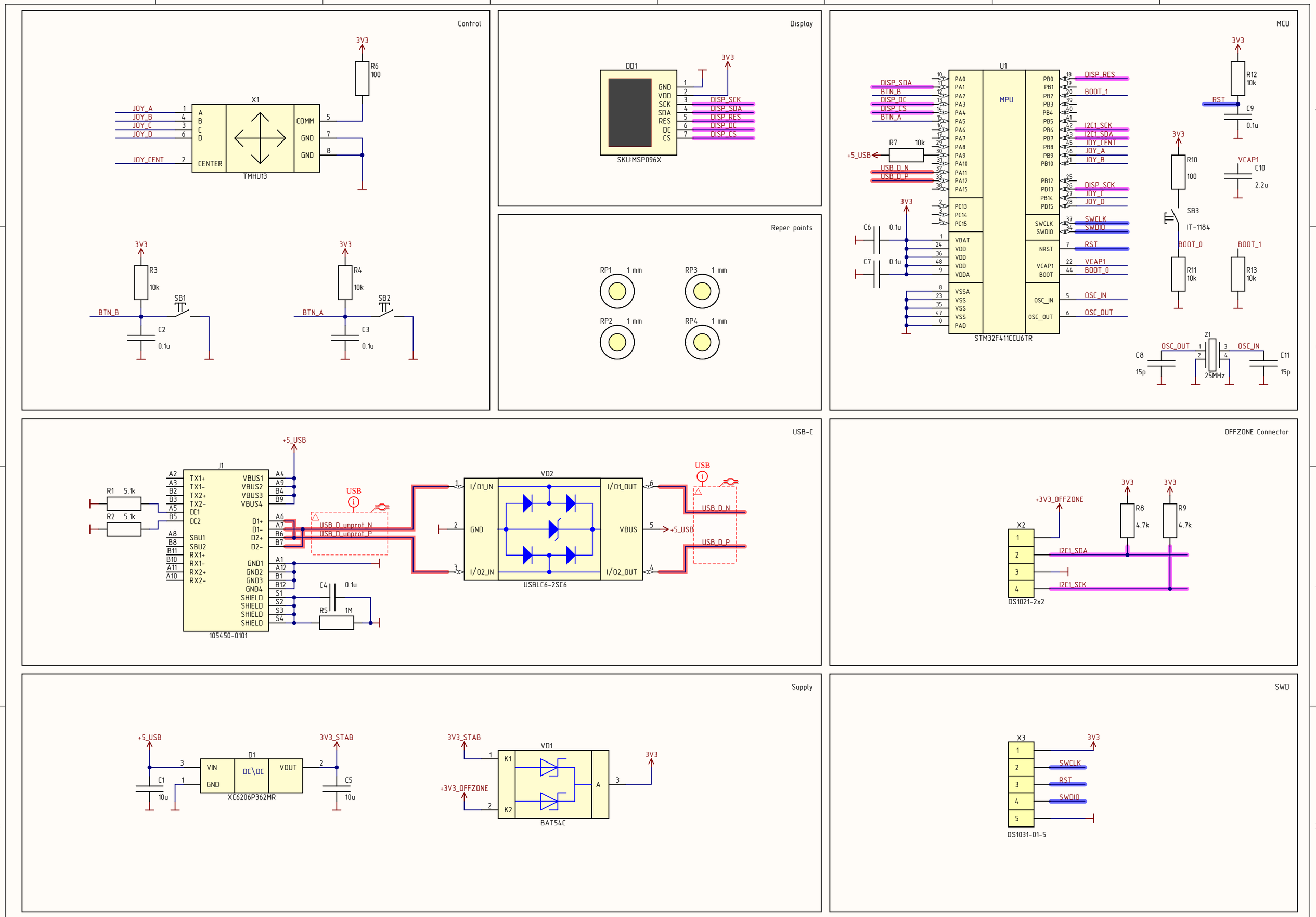
Control
3V3
R6
100
X1
JOY_A
JOY_B
JOY_C
JOY_D
JOY_CENT
A
B
C
D
CENTER
COMM
GND
GND
TMHU13
R3
10k
SB1
BTN_B
C2
0.1u
R4
10k
SB2
BTN_A
C3
0.1u
Display
DD1
GND
VDD
SCK
SDA
RES
DC
CS
DISP_SCK
DISP_SDA
DISP_RES
DISP_DC
DISP_CS
SKU:MSP096X
Reper points
RP1 1 mm
RP3 1 mm
RP2 1 mm
RP4 1 mm
MCU
U1
MPU
DISP_SDA
BTN_B
DISP_DC
DISP_CS
BTN_A
R7 10k
+5_USB
USB_D_N
USB_D_P
DISP_RES
BOOT_1
I2C1_SCK
I2C1_SDA
JOY_CENT
JOY_A
JOY_B
DISP_SCK
JOY_C
JOY_D
SWCLK
SWDIO
RST
VCAP1
BOOT_0
OSC_IN
OSC_OUT
STM32F411CCU6TR
R12
10k
C9
0.1u
R10
100
SB3
IT-1184
R11
10k
R13
10k
C10
2.2u
C6 0.1u
C7 0.1u
Z1
25MHz
C8 15p
C11 15p
USB-C
J1
TX1+
TX1-
TX2+
TX2-
CC1
CC2
SBU1
SBU2
RX1+
RX1-
RX2+
RX2-
VBUS1
VBUS2
VBUS3
VBUS4
D1+
D1-
D2+
D2-
GND1
GND2
GND3
GND4
SHIELD
105450-0101
R1 5.1k
R2 5.1k
USB
USB_D_unprot_N
USB_D_unprot_P
C4 0.1u
R5 1M
VD2
I/O1_IN
GND
I/O2_IN
I/O1_OUT
VBUS
I/O2_OUT
USBLC6-2SC6
USB_D_N
USB_D_P
OFFZONE Connector
+3V3_OFFZONE
X2
I2C1_SDA
I2C1_SCK
R8
4.7k
R9
4.7k
DS1021-2x2
Supply
D1
VIN
GND
DC\DC
VOUT
XC6206P362MR
3V3_STAB
C1 10u
C5 10u
VD1
K1
K2
A
BAT54C
SWD
X3
SWCLK
RST
SWDIO
DS1031-01-5