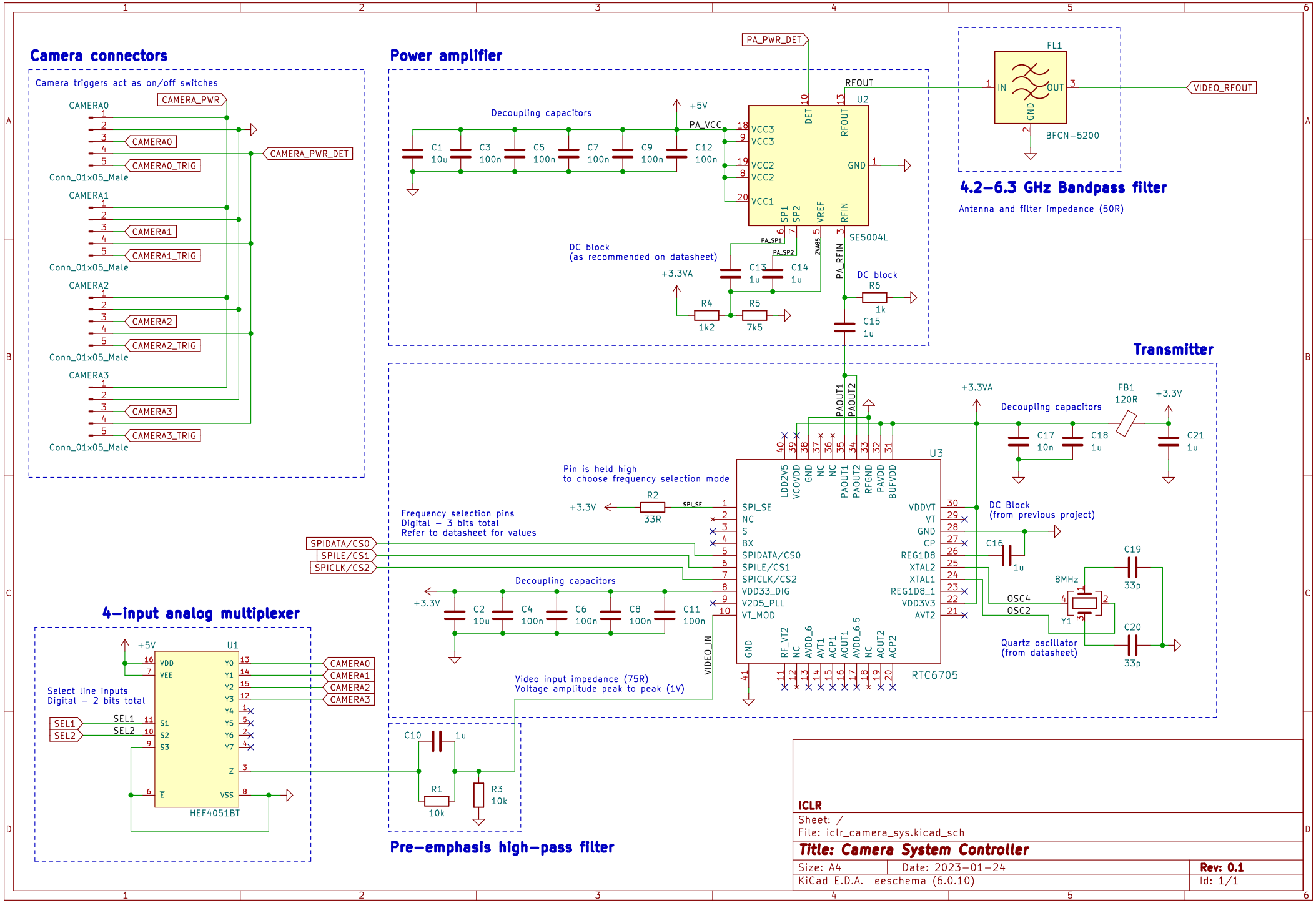
Camera connectors
Camera triggers act as on/off switches
CAMERA_PWR
CAMERA0
CAMERA0_TRIG
CAMERA_PWR_DET
Conn_01x05_Male
CAMERA1
CAMERA1_TRIG
CAMERA2
CAMERA2_TRIG
CAMERA3
CAMERA3_TRIG
Power amplifier
PA_PWR_DET
Decoupling capacitors
+5V
PA_VCC
C1 10u
C3 100n
C5 100n
C7 100n
C9 100n
C12 100n
U2
RFOUT
GND
SE5004L
DC block
(as recommended on datasheet)
+3.3VA
C13 1u
C14 1u
R4 1k2
R5 7k5
DC block
R6 1k
C15 1u
FL1
BFCN-5200
4.2–6.3 GHz Bandpass filter
Antenna and filter impedance (50R)
VIDEO_RFOUT
Transmitter
U3
RTC6705
Pin is held high
to choose frequency selection mode
R2 33R
Frequency selection pins
Digital – 3 bits total
Refer to datasheet for values
SPIDATA/CS0
SPILE/CS1
SPICLK/CS2
Decoupling capacitors
C2 10u
C4 100n
C6 100n
C8 100n
C11 100n
VIDEO_IN
Video input impedance (75R)
Voltage amplitude peak to peak (1V)
+3.3VA
FB1 120R
+3.3V
C17 10n
C18 1u
C21 1u
DC Block
(from previous project)
C16 1u
8MHz
Y1
C19 33p
C20 33p
OSC4
OSC2
Quartz oscillator
(from datasheet)
4–input analog multiplexer
U1
HEF4051BT
Select line inputs
Digital – 2 bits total
SEL1
SEL2
C10 1u
R1 10k
R3 10k
Pre–emphasis high–pass filter
ICLR
Sheet: /
File: iclr_camera_sys.kicad_sch
Title: Camera System Controller
Size: A4
Date: 2023-01-24
Rev: 0.1
KiCad E.D.A. eeschema (6.0.10)
Id: 1/1