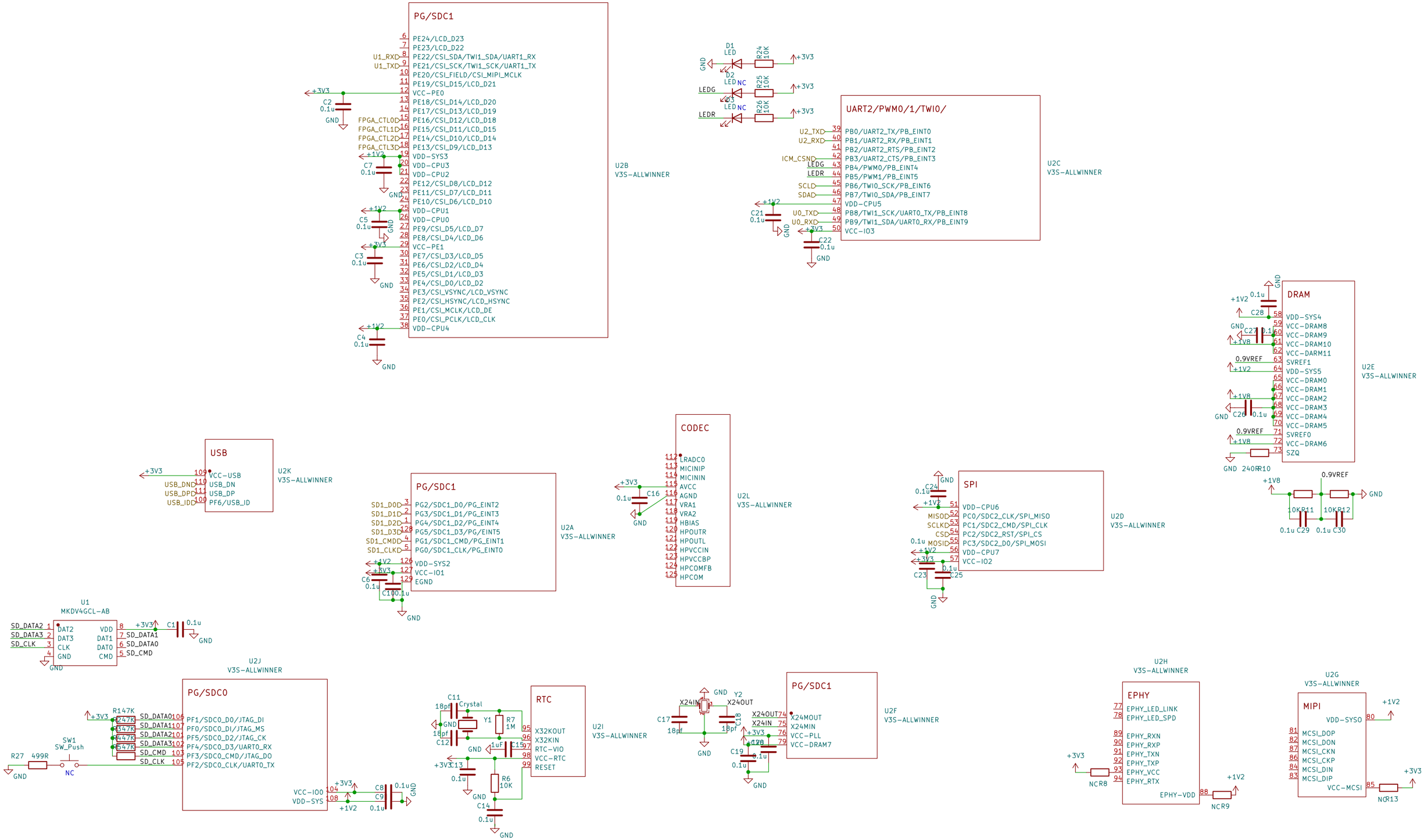
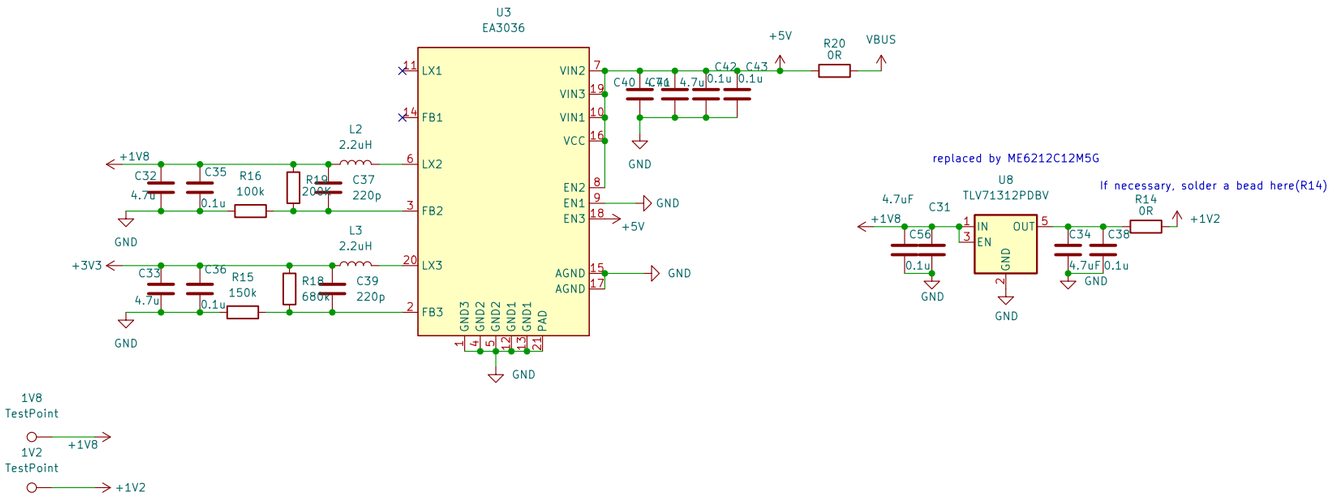
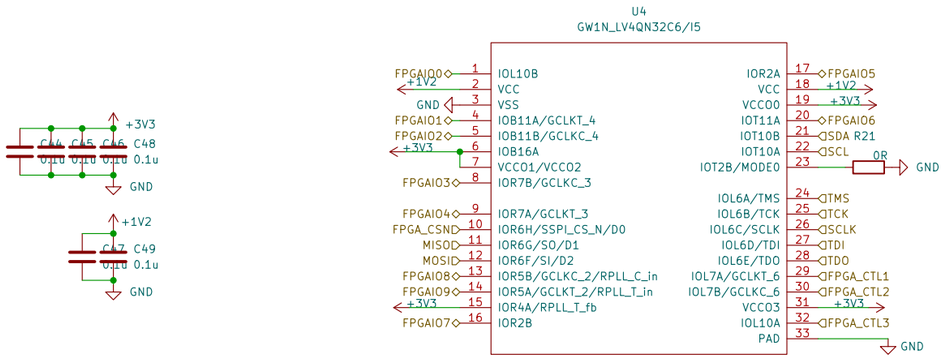
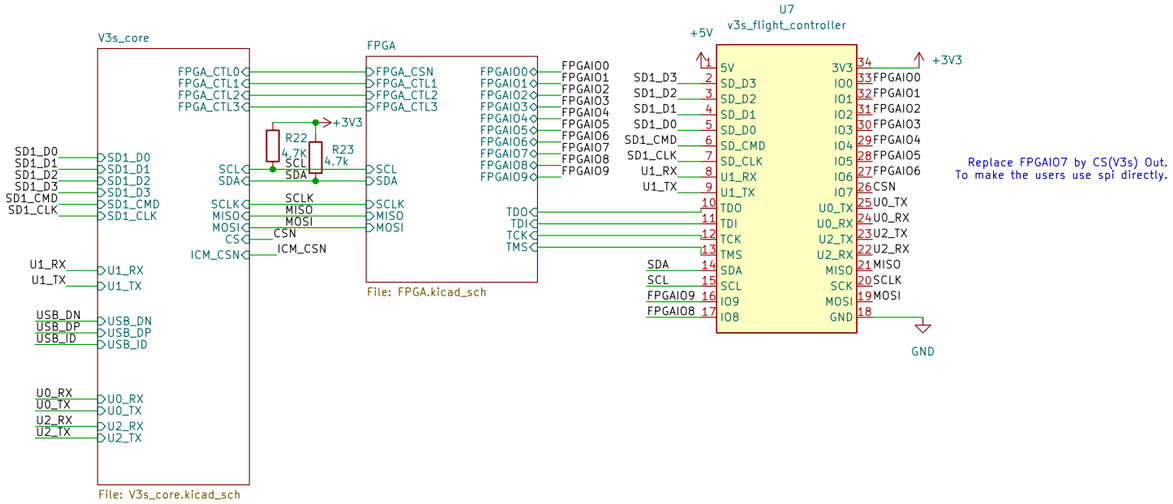

PG/SDC1
PE24/LCD_D23
PE23/LCD_D22
U1_RXD PE22/CSI_SDA/TWI1_SDA/UART1_RX
U1_TXD PE21/CSI_SCK/TWI1_SCK/UART1_TX
PE20/CSI_FIELD/CSI_MIPI_MCLK
PE19/CSI_D15/LCD_D21
+3V3 VCC-PE0
PE18/CSI_D14/LCD_D20
PE17/CSI_D13/LCD_D19
FPGA_CTL0D PE16/CSI_D12/LCD_D18
FPGA_CTL1D PE15/CSI_D11/LCD_D15
FPGA_CTL2D PE14/CSI_D10/LCD_D14
FPGA_CTL3D PE13/CSI_D9/LCD_D13
+1V2 VDD-SYS3
VDD-CPU3
VDD-CPU2
PE12/CSI_D8/LCD_D12
PE11/CSI_D7/LCD_D11
PE10/CSI_D6/LCD_D10
+1V2 VDD-CPU1
VDD-CPU0
PE9/CSI_D5/LCD_D7
PE8/CSI_D4/LCD_D6
+3V3 VCC-PE1
PE7/CSI_D3/LCD_D5
PE6/CSI_D2/LCD_D4
PE5/CSI_D1/LCD_D3
PE4/CSI_D0/LCD_D2
PE3/CSI_VSYNC/LCD_VSYNC
PE2/CSI_HSYNC/LCD_HSYNC
PE1/CSI_MCLK/LCD_DE
PE0/CSI_PCLK/LCD_CLK
+1V2 VDD-CPU4
U2B
V3S-ALLWINNER
C2 0.1u
C7 0.1u
C5 0.1u
C3 0.1u
C4 0.1u
GND
D1 LED
D2 LED NC
D3 LED NC
R24 10K
R25 10K
R26 10K
LEDG
LEDR
UART2/PWM0/1/TWI0/
U2_TX PB0/UART2_TX/PB_EINT0
U2_RX PB1/UART2_RX/PB_EINT1
PB2/UART2_RTS/PB_EINT2
ICM_CSN PB3/UART2_CTS/PB_EINT3
LEDG PB4/PWM0/PB_EINT4
LEDR PB5/PWM1/PB_EINT5
SCL PB6/TWI0_SCK/PB_EINT6
SDA PB7/TWI0_SDA/PB_EINT7
VDD-CPU5
U0_TX PB8/TWI1_SCK/UART0_TX/PB_EINT8
U0_RX PB9/TWI1_SDA/UART0_RX/PB_EINT9
VCC-IO3
U2C
V3S-ALLWINNER
C21 0.1u
C22 0.1u
DRAM
VDD-SYS4
VCC-DRAM8
VCC-DRAM9
VCC-DRAM10
VCC-DARM11
0.9VREF SVREF1
VDD-SYS5
VCC-DRAM0
VCC-DRAM1
VCC-DRAM2
VCC-DRAM3
VCC-DRAM4
VCC-DRAM5
SVREF0
VCC-DRAM6
SZQ
U2E
V3S-ALLWINNER
C28 0.1u
C27 0.1u
C26 0.1u
240R R10
C29 0.1u
C30 0.1u
10K R11
10K R12
USB
VCC-USB
USB_DN
USB_DP
PF6/USB_ID
U2K
V3S-ALLWINNER
USB_DND
USB_DPD
USB_IDD
PG/SDC1
PG2/SDC1_D0/PG_EINT2
PG3/SDC1_D1/PG_EINT3
PG4/SDC1_D2/PG_EINT4
PG5/SDC1_D3/PG/EINT5
PG1/SDC1_CMD/PG_EINT1
PG0/SDC1_CLK/PG_EINT0
VDD-SYS2
VCC-IO1
EGND
U2A
V3S-ALLWINNER
SD1_D0D
SD1_D1D
SD1_D2D
SD1_D3D
SD1_CMDD
SD1_CLKD
C6 0.1u
C10 0.1u
CODEC
LRADC0
MICINIP
MICININ
AVCC
AGND
VRA1
VRA2
HBIAS
HPOUTR
HPOUTL
HPVCCIN
HPVCCBP
HPCOMFB
HPCOM
U2L
V3S-ALLWINNER
C16 0.1u
SPI
VDD-CPU6
PC0/SDC2_CLK/SPI_MISO
PC1/SDC2_CMD/SPI_CLK
PC2/SDC2_RST/SPI_CS
PC3/SDC2_D0/SPI_MOSI
VDD-CPU7
VCC-IO2
U2D
V3S-ALLWINNER
C24 0.1u
C23 0.1u
C25 0.1u
MISOD
SCLKD
CSD
MOSID
U1
MKDV4GCL-AB
DAT2
DAT3
CLK
GND
VDD
DAT1
DAT0
CMD
SD_DATA2
SD_DATA3
SD_CLK
SD_DATA1
SD_DATA0
SD_CMD
C1 0.1u
PG/SDC0
PF1/SDC0_D0/JTAG_DI
PF0/SDC0_DI/JTAG_MS
PF5/SDC0_D2/JTAG_CK
PF4/SDC0_D3/UART0_RX
PF3/SDC0_CMD/JTAG_DO
PF2/SDC0_CLK/UART0_TX
VCC-IO0
VDD-SYS
U2J
V3S-ALLWINNER
R147K
R247K
R347K
R447K
R547K
SD_DATA0
SD_DATA1
SD_DATA2
SD_DATA3
SD_CMD
SD_CLK
SW1
SW_Push
R27 499R
NC
C8
C9
0.1u
RTC
X32KOUT
X32KIN
RTC-VIO
VCC-RTC
RESET
U2I
V3S-ALLWINNER
C11 18pf
C12 18pf
Crystal
Y1
R7 1M
C15 1uf
C13 0.1u
R6 10K
C14 0.1u
PG/SDC1
X24MOUT
X24MIN
VCC-PLL
VCC-DRAM7
U2F
V3S-ALLWINNER
Y2
X24OUT
X24IN
C17 18pf
C18 18pf
C19 0.1u
C20 0.1u
EPHY
EPHY_LED_LINK
EPHY_LED_SPD
EPHY_RXN
EPHY_RXP
EPHY_TXN
EPHY_TXP
EPHY_VCC
EPHY_RTX
EPHY-VDD
U2H
V3S-ALLWINNER
NCR8
NCR9
MIPI
VDD-SYS0
MCSI_DOP
MCSI_DON
MCSI_CKN
MCSI_CKP
MCSI_DIN
MCSI_DIP
VCC-MCSI
U2G
V3S-ALLWINNER
NCR13


U3
EA3036
LX1
FB1
LX2
FB2
LX3
FB3
VIN2
VIN3
VIN1
VCC
EN2
EN1
EN3
AGND
AGND
GND3
GND2
GND2
GND1
GND1
PAD
+5V
R20
0R
VBUS
C40
C41
4.7u
C42
0.1u
C43
0.1u
GND
+1V8
C32
4.7u
C35
0.1u
R16
100k
R19
200k
C37
220p
L2
2.2uH
+3V3
C33
4.7u
C36
0.1u
R15
150k
R18
680k
C39
220p
L3
2.2uH
replaced by ME6212C12M5G
U8
TLV71312PDBV
IN
EN
OUT
GND
4.7uF
C31
C56
0.1u
C34
4.7uF
C38
0.1u
If necessary, solder a bead here(R14)
R14
0R
+1V2
1V8
TestPoint
1V2
TestPoint


U4
GW1N_LV4QN32C6/I5
FPGAIO0
+1V2
GND
FPGAIO1
FPGAIO2
+3V3
FPGAIO3
FPGAIO4
FPGA_CSND
MISOD
MOSID
FPGAIO8
FPGAIO9
+3V3
FPGAIO7
IOL10B
VCC
VSS
IOB11A/GCLKT_4
IOB11B/GCLKC_4
IOB16A
VCCO1/VCCO2
IOR7B/GCLKC_3
IOR7A/GCLKT_3
IOR6H/SSPI_CS_N/D0
IOR6G/SO/D1
IOR6F/SI/D2
IOR5B/GCLKC_2/RPLL_C_in
IOR5A/GCLKT_2/RPLL_T_in
IOR4A/RPLL_T_fb
IOR2B
IOR2A
VCC
VCCO0
IOT11A
IOT10B
IOT10A
IOT2B/MODE0
IOL6A/TMS
IOL6B/TCK
IOL6C/SCLK
IOL6D/TDI
IOL6E/TDO
IOL7A/GCLKT_6
IOL7B/GCLKC_6
VCCO3
IOL10A
PAD
FPGAIO5
+1V2
+3V3
FPGAIO6
SDA R21
SCL
0R
GND
TMS
TCK
SCLK
TDI
TDO
FPGA_CTL1
FPGA_CTL2
+3V3
FPGA_CTL3
GND
C44 C45 C46 C48
0.1u 0.1u 0.1u 0.1u
+3V3
GND
C47 C49
0.1u 0.1u
+1V2
GND


V3s_core
SD1_D0
SD1_D1
SD1_D2
SD1_D3
SD1_CMD
SD1_CLK
U1_RX
U1_TX
USB_DN
USB_DP
USB_ID
U0_RX
U0_TX
U2_RX
U2_TX
FPGA_CTL0
FPGA_CTL1
FPGA_CTL2
FPGA_CTL3
SCL
SDA
SCLK
MISO
MOSI
CS
ICM_CSN
R22
4.7K
R23
4.7k
+3V3
File: V3s_core.kicad_sch
FPGA
FPGA_CSN
FPGA_CTL1
FPGA_CTL2
FPGA_CTL3
FPGAIO0
FPGAIO1
FPGAIO2
FPGAIO3
FPGAIO4
FPGAIO5
FPGAIO6
FPGAIO7
FPGAIO8
FPGAIO9
TDO
TDI
TCK
TMS
File: FPGA.kicad_sch
U7
v3s_flight_controller
+5V
5V
SD_D3
SD_D2
SD_D1
SD_D0
SD_CMD
SD_CLK
U1_RX
U1_TX
TDO
TDI
TCK
TMS
SDA
SCL
IO9
IO8
3V3
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
U0_TX
U0_RX
U2_TX
U2_RX
MISO
SCK
MOSI
GND
+3V3
Replace FPGAIO7 by CS(V3s) Out.
To make the users use spi directly.
Power
File: power.kicad_sch
J4
USB_C_Receptacle
VBUS
CC1
CC2
D-
D+
RX1-
RX1+
TX1-
TX1+
RX2-
RX2+
TX2-
TX2+
SBU1
SBU2
SHIELD
GND
USB_DN
USB_DP
U5
HMC5883L-TR
NC
VDD
VDDIO
S1
C1
SETP
SETC
DRDY
C50
4.7u
C51
0.22uF
U6
SPL06-001
GND
CSB
SDA
SCK
VDD
GND
VDDIO
SDO
C52
0.1u
I1
ICM20600
MOSI
SCLK
ICM_CSN
ADO
NC
INT1
REGOUT
FSYNC
INT2
VDD
REV
C53
0.1u
C54
0.1u
C55
0.1u
J1
Conn_01x04_MountingPin
J2
Conn_01x04_MountingPin
J3
Conn_01x04_MountingPin
MP