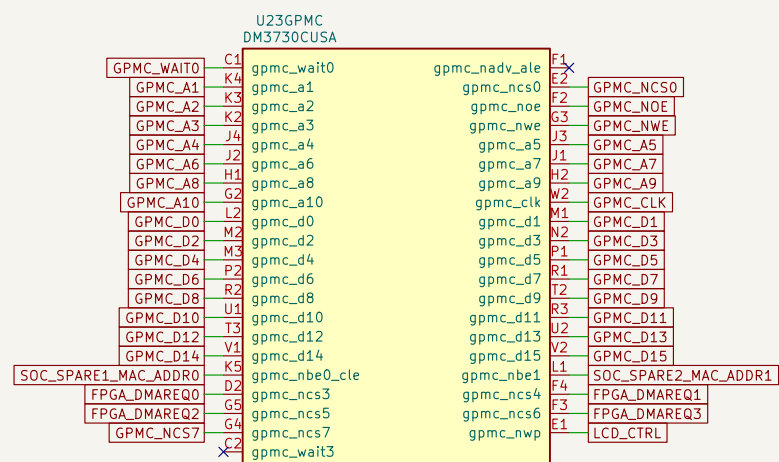


	1	2	3	4	5	6	7	8
A	01 Processor: DM3730 core, boot and the SDRAM interface Core, clocks and boot Debug (JTAG) SDRAM interface File: ti-orion-4001-cpu.kicad_sch							
B	02 Video pipeline: the FPGA, its processor bus, the camera port FPGA register and frame bus Video FPGA (Cyclone IV EP4CE75) FPGA frame memory Camera port File: ti-orion-4001-video.kicad_sch							
C	03 Display and HDMI LCD panel TV out HDMI File: ti-orion-4001-display.kicad_sch							
D	04 USB Device port Host port and hub File: ti-orion-4001-usb.kicad_sch							
E	05 Storage, radio, keypad and control buses SD card and eMMC Wi-Fi and Bluetooth I2C and SPI Keypad File: ti-orion-4001-io.kicad_sch							
F	06 Power: the TPS65930 PMIC and the processor's supplies Power management (TPS65930) Processor supplies FPGA supplies File: ti-orion-4001-power.kicad_sch							
	1	2	3	4	5	6	7	8

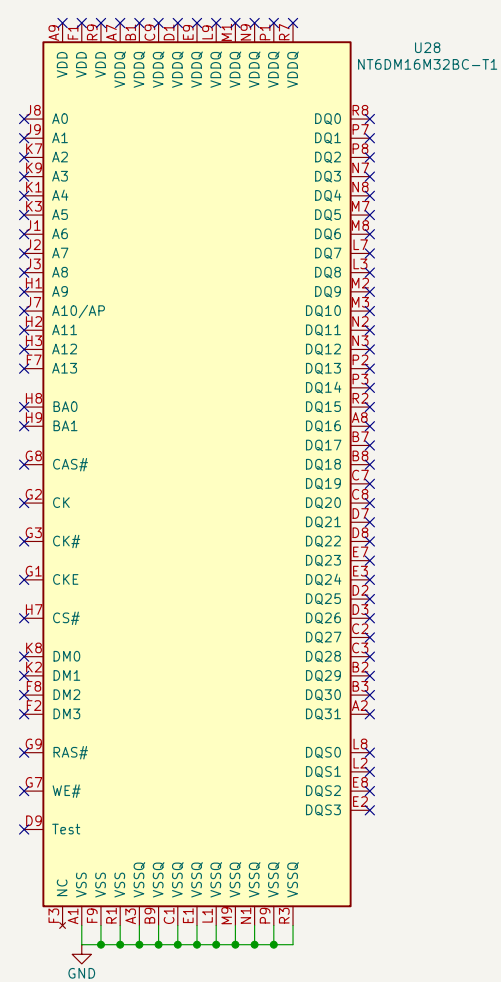
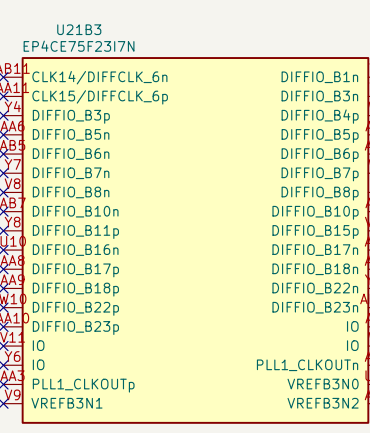
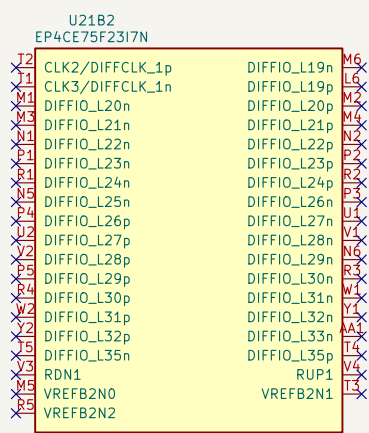
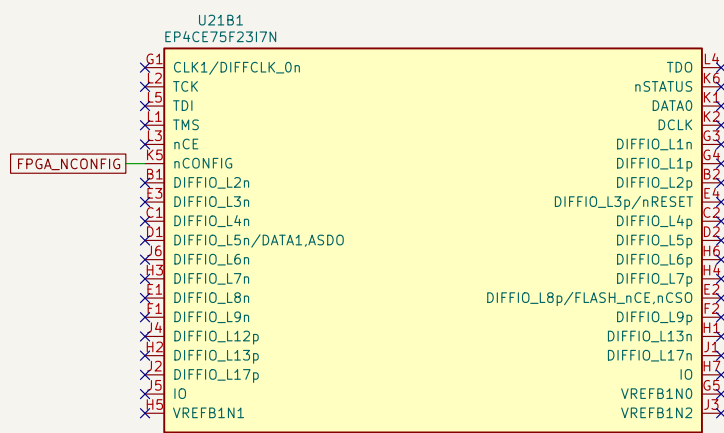
Parts from the board; nets from the stock firmware and datasheets, each one cited.
NC on a pin = not traced yet. Schematic stage: no outline, no placement.

Sheet: / File: ti-orion-4001.kicad_sch		
Title: TI-ORION-4001: Fluke TiX5xx main board, redrawn		
Size: A3	Date:	Rev: 008
KiCad E.D.A. 10.0.6		Id: 1/7

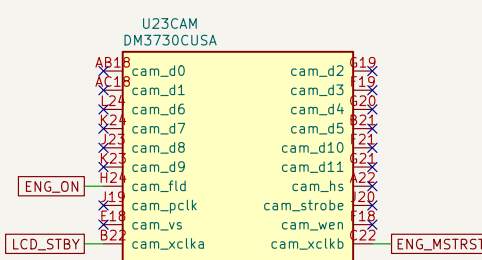
chip selects, address / data, DMA requests



bitstream's, not the firmware's

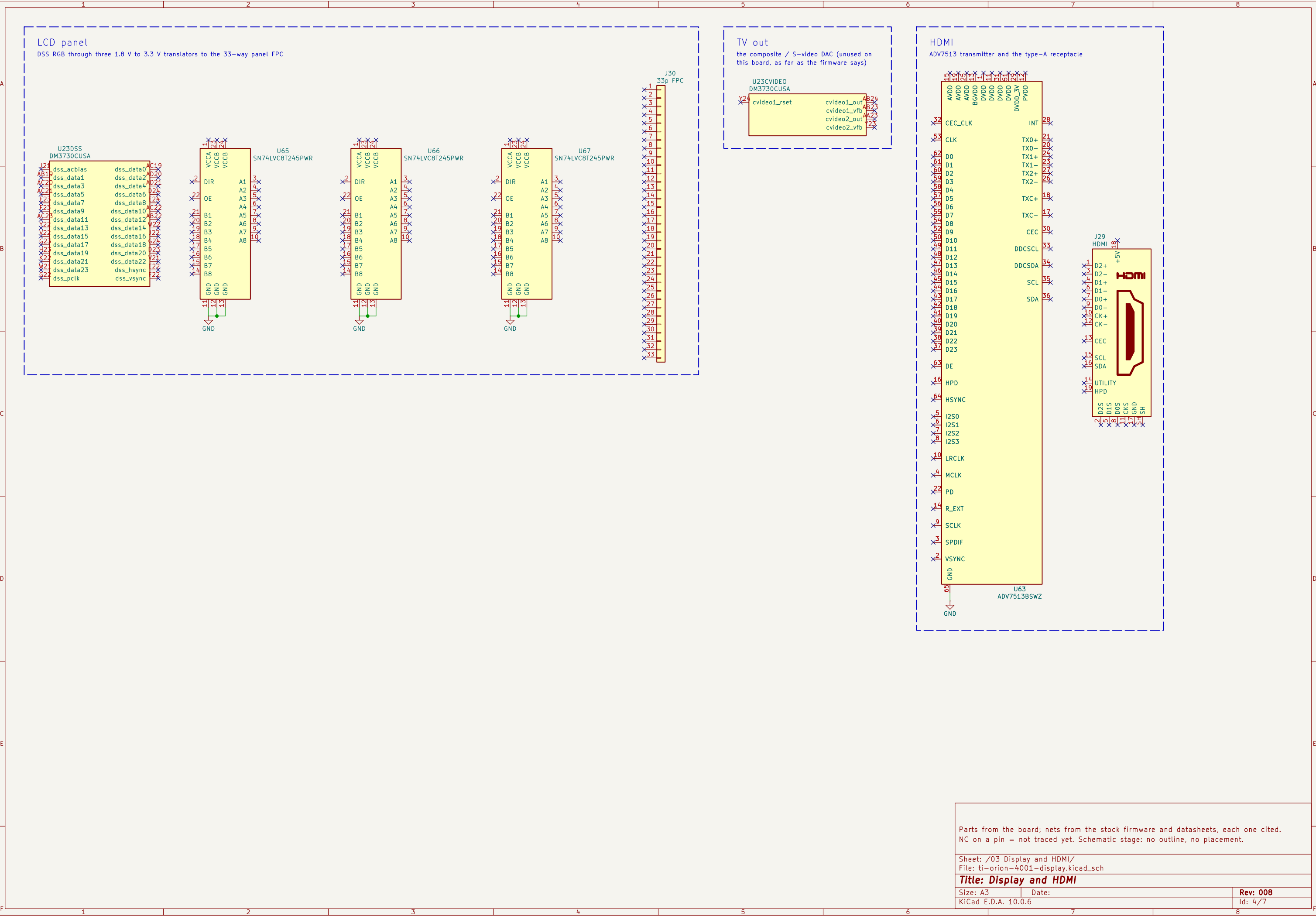


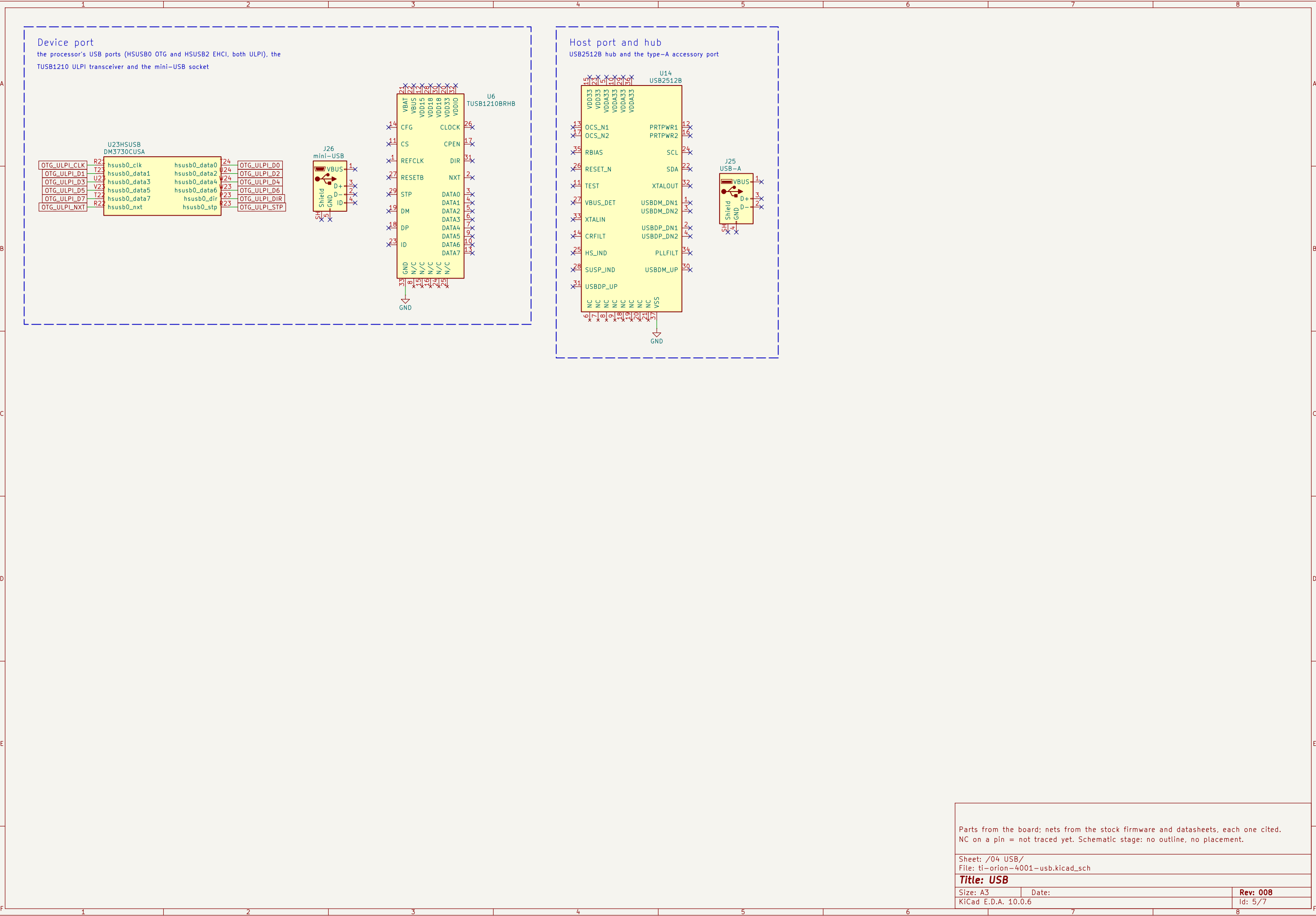
the ISP input the FPGA video reaches (not set by the firmware)



KiCad E.D.A. 10.0.6

Id: 3/7





VDD33

VDD33

VDDA33

VDDA33

VDDA33

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OCS_N1

OCS_N2

RBIAIS

RESET_N

TEST

VBUS_DET

XTALIN

CRFILT

HS_IND

SUSP_IND

USBDP_UP

NC

NC

NC

NC

NC

NC

NC

VSS

12

16

24

22

32

1

3

2

4

34

30

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

PRTWPWR1

PRTWPWR2

SCL

SDA

XTALOUT

USBDM_DN1

USBDM_DN2

USBDP_DN1

USBDP_DN2

PLLFLT

USBDM_UP

U14

USB2512B

Shield

VBUS

GND

D+

D-

1

3

2

4

J25

USB-A

Device port

the processor's USB ports (HSUSB0 OTG and HSUSB2 EHCl, both ULPI), the TUSB1210 ULPI transceiver and the mini-USB socket

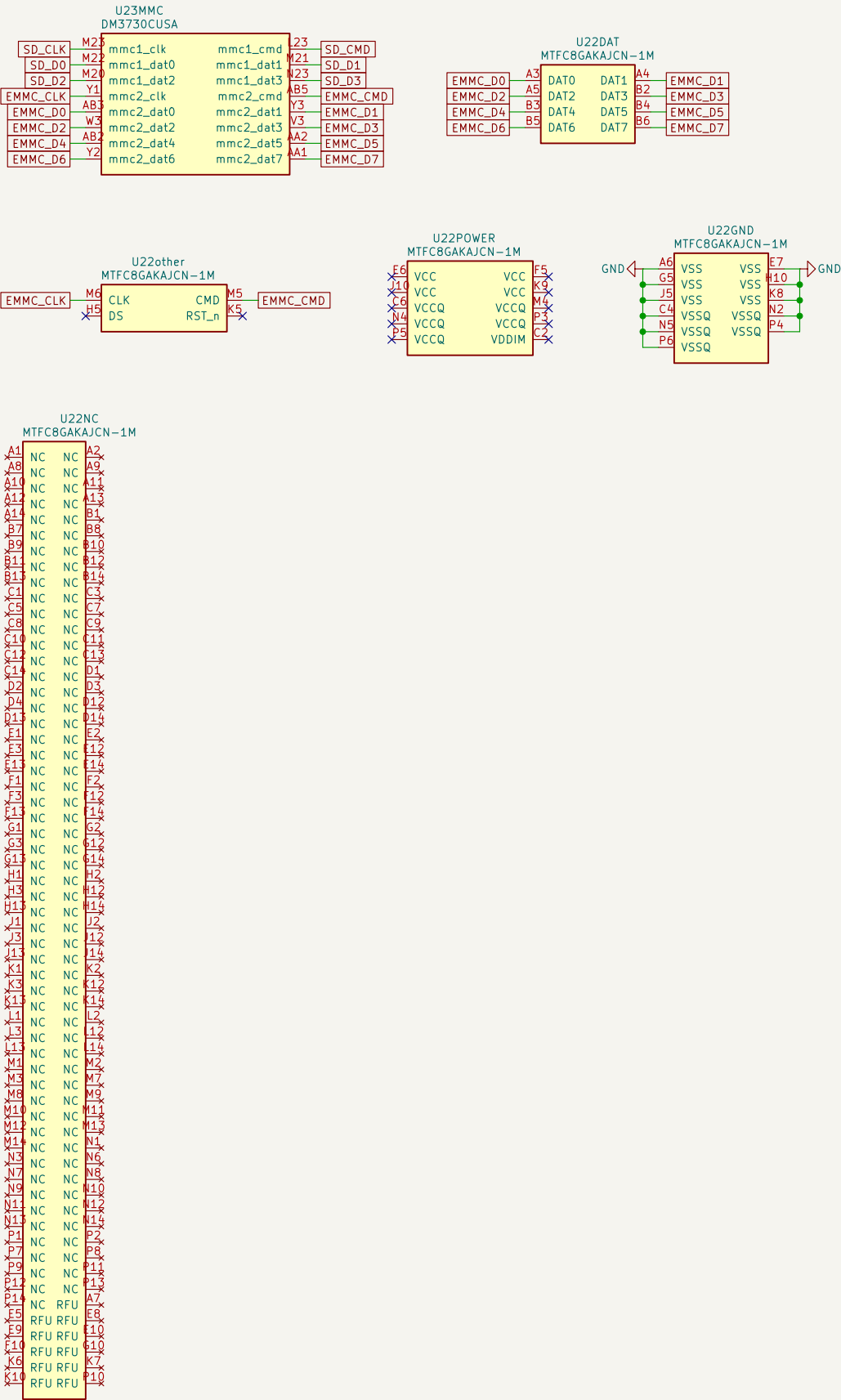
Host port and hub

USB2512B hub and the type-A accessory port

Parts from the board; nets from the stock firmware and datasheets, each one cited.
NC on a pin = not traced yet. Schematic stage: no outline, no placement.

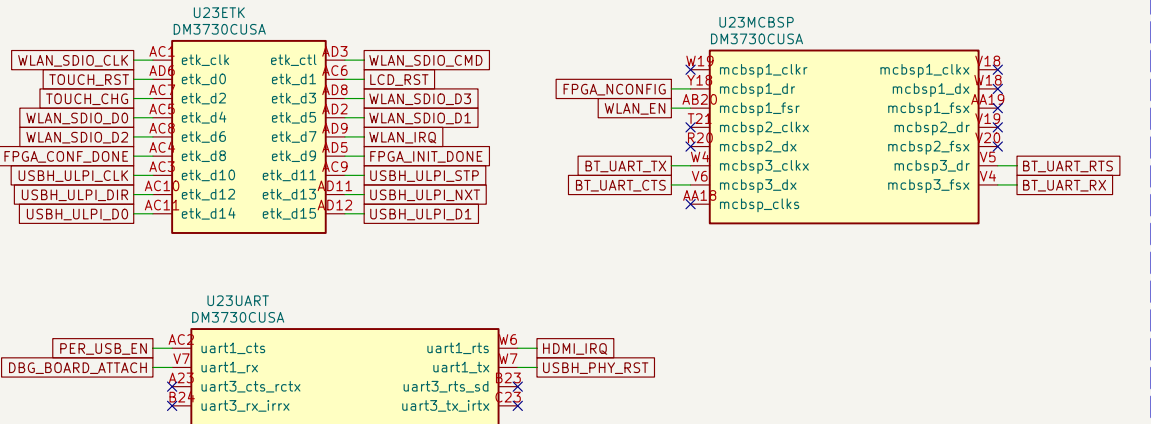
SD card and eMMC

MMC1: microSD (4-bit); MMC2: the 8 GB eMMC U22 (8-bit)



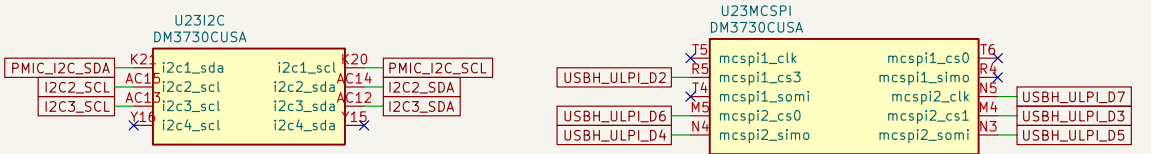
Wi-Fi and Bluetooth

SDIO on the ETK pads, Bluetooth UART and PCM on McBSP / UART



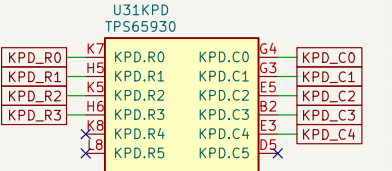
I2C and SPI

I2C1 to the PMIC, I2C2 touch, I2C3; McSPI



Keypad

the TPS65930's 4 x 5 key matrix



Parts from the board; nets from the stock firmware and datasheets, each one cited.
NC on a pin = not traced yet. Schematic stage: no outline, no placement.

Sheet: /05 Storage, radio, keypad and control buses/
File: ti-orion-4001-io.kicad_sch

Title: Storage, radio, keypad and control buses

Size: A3	Date:	Rev: 008
KiCad E.D.A. 10.0.6		Id: 6/7

