

<https://electronics.stackexchange.com/questions/473037/how-to-design-a-snap-breakable-pcb-module>

Display board (SNAP OFF BOARD)

Snap off board for the display side- outputs are a 40 pin ZIF and a 8 pin ZIF (ffc's)

File: display_board.kicad_sch

Buttons

SHOULDER_RD > SHOULDER_R
SHOULDER_LD > SHOULDER_L
DPAD_UP > DPAD_UP
DPAD_DOWN > DPAD_DOWN
DPAD_LEFT > DPAD_LEFT
DPAD_RIGHT > DPAD_RIGHT
BTN_AD > BTN_A
BTN_BD > BTN_B
BTN_BACKLIGHT > BTN_BACKLIGHT
BTN_START > BTN_START
BTN_SELECT > BTN_SELECT
GLOBAL_EN < GLOBAL_EN

+3.3v > +3.3v

File: gamepad.kicad_sch

CM4

+1.8v
+3.3v
+5v
+1.8v
+3.3v
+5v

Connectors:
- Hirose 100 pin
- SD CARD
- SPI DISPLAY
Output:
- Speaker

FUEL_SDA
FUEL_SCL

File: CM4.kicad_sch

Connectors

Connectors:
- Hirose 100 pin
- USB C 2.0
- Peripheral (ie: kbm combo)
- MicroHDMI Output
- USB C
- Power only (Battery system)

+5v < +5v

QVBUS_CHARGE

File: connectors.kicad_sch

Battery

FUEL_SDA
FUEL_SCL

BATT <

+3.3v > +3.3v

File: battery.kicad_sch

Battery Charger

BATT <

CHRG <

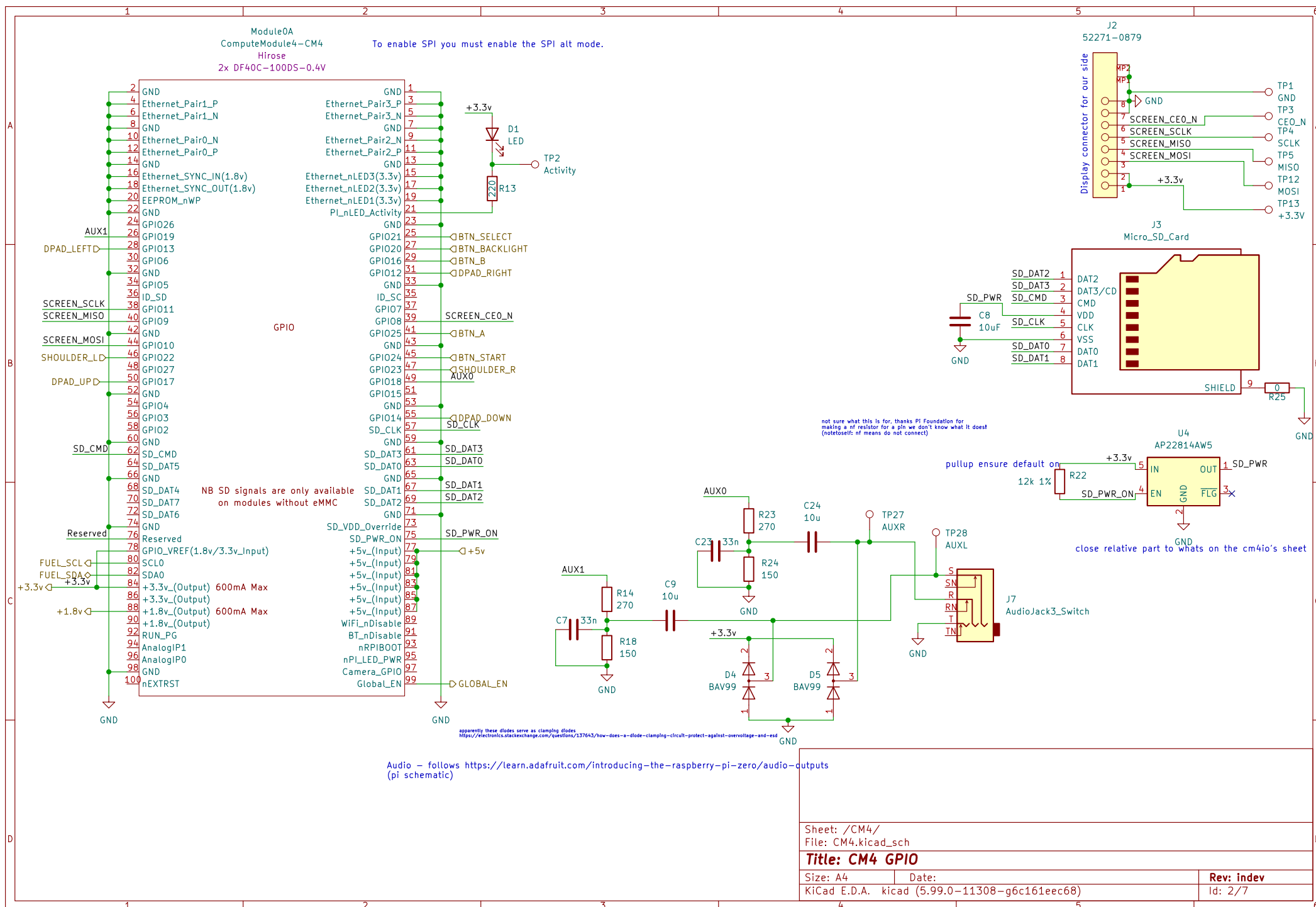
5v > +5v

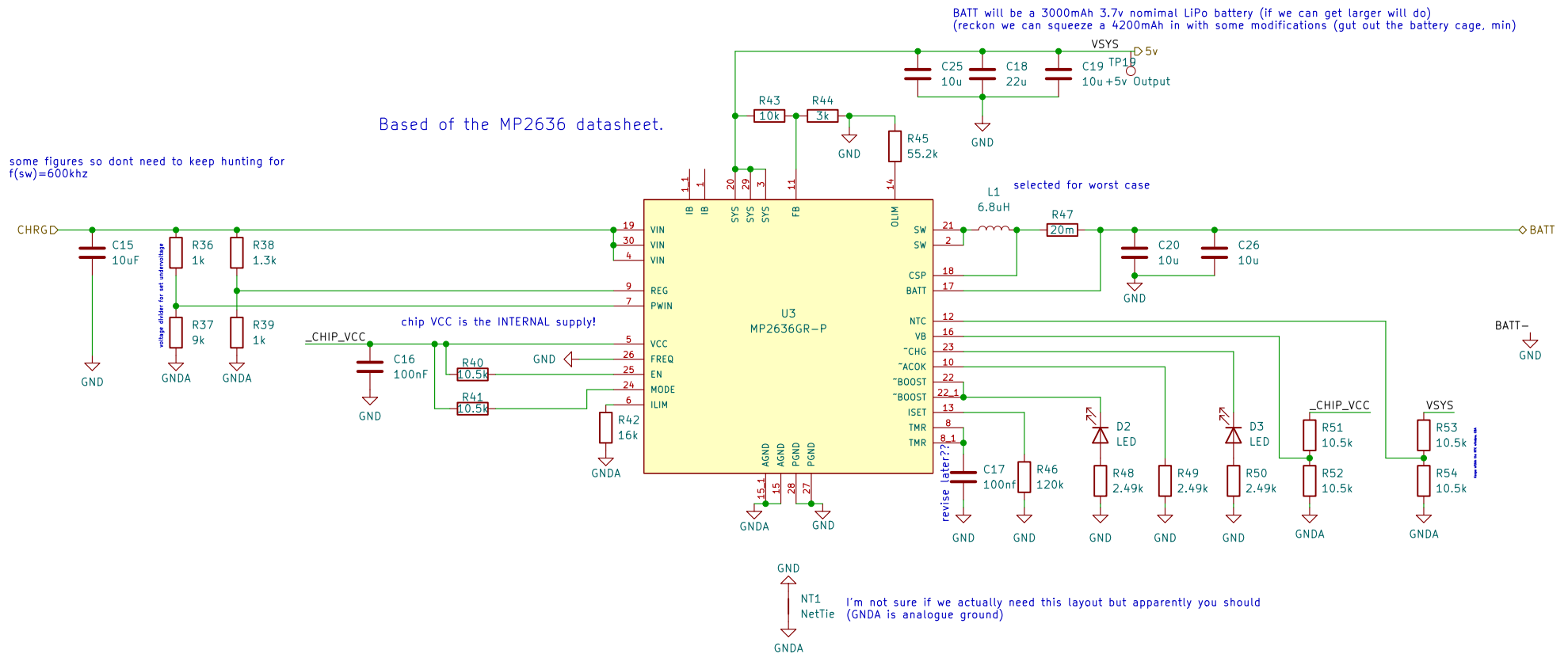
File: power.kicad_sch

Sheet: /
File: carrier.kicad_sch

Title: CM4 Gameboy Main Sheet

Size: A4	Date:	Rev: indev
KiCad E.D.A. kicad (5.99.0-11308-g6c161eec68)		Id: 1/7





Sheet: /Battery Charger/
File: power.kicad_sch

Title: Power and battery

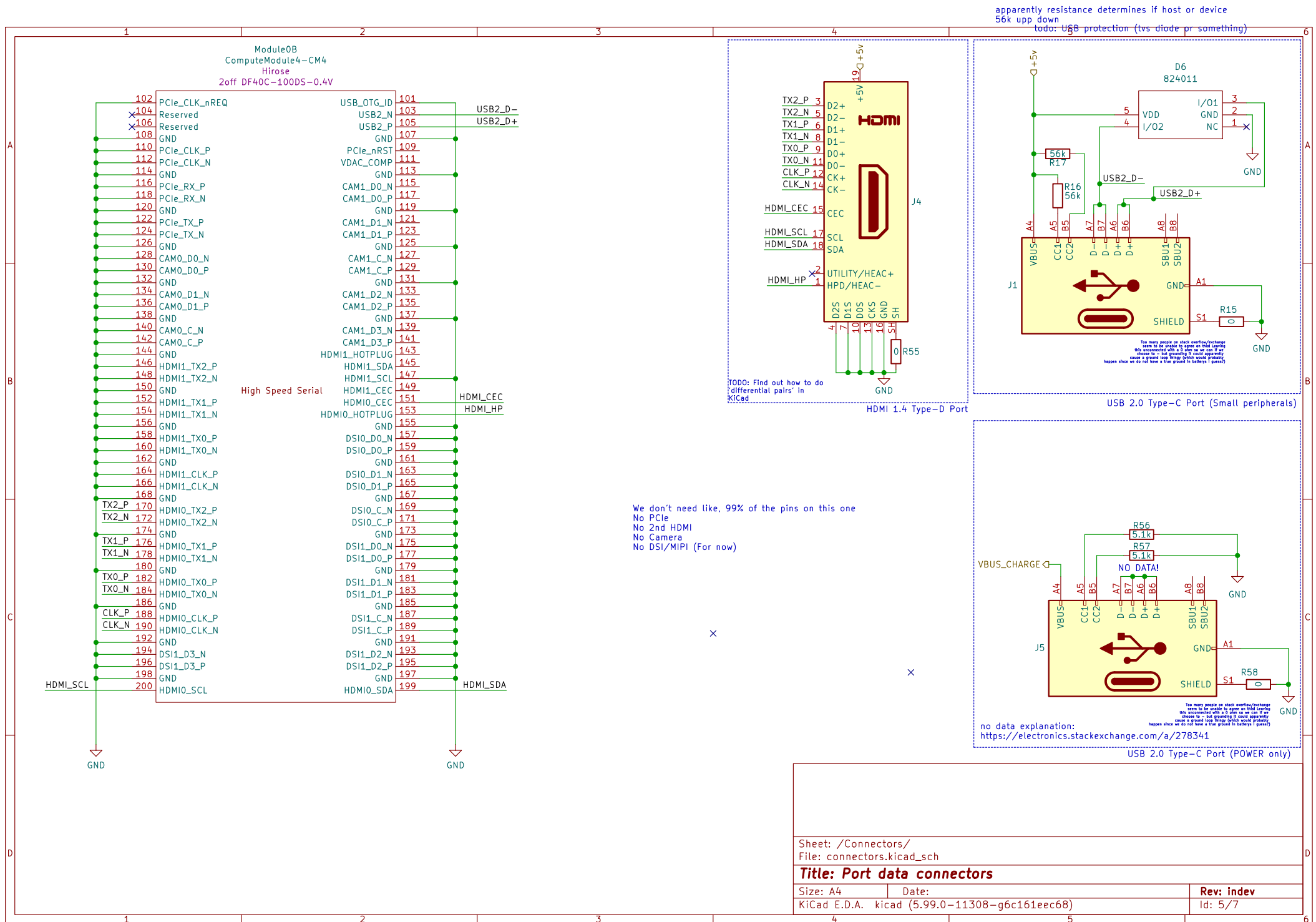
Size: A4

Date:

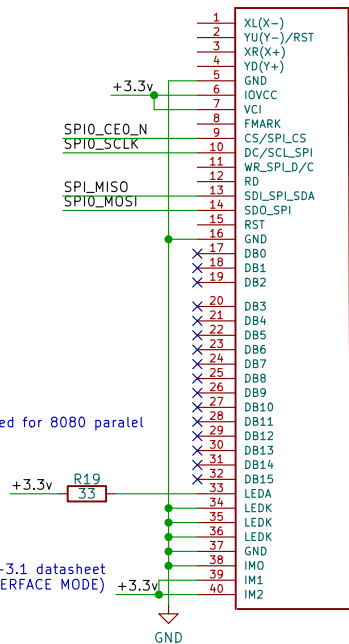
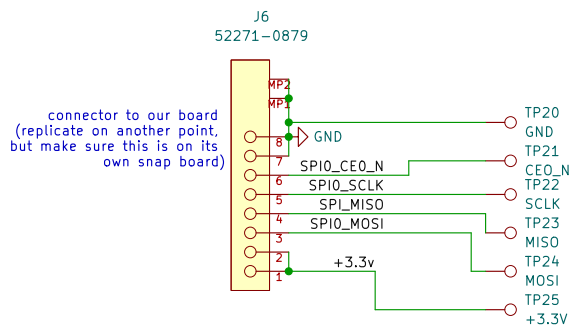
KiCad E.D.A. kicad (5.99.0-11308-g6c161eec68)

Rev: indev

Id: 4/7



SPI display control TODO: make spacing better



This is the display connector

U2
ER-CON40HT-1

used for 8080 paralel

As per ER-TFT032-3.1 datasheet
(MCU INTERFACE MODE)

Sheet: /Display board (SNAP OFF BOARD)/		
File: display_board.kicad_sch		
Title: Display connector board (not part of mainboard)		
Size: A4	Date:	Rev: indev
KiCad E.D.A. kicad (5.99.0-11308-g6c161eec68)		Id: 6/7

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