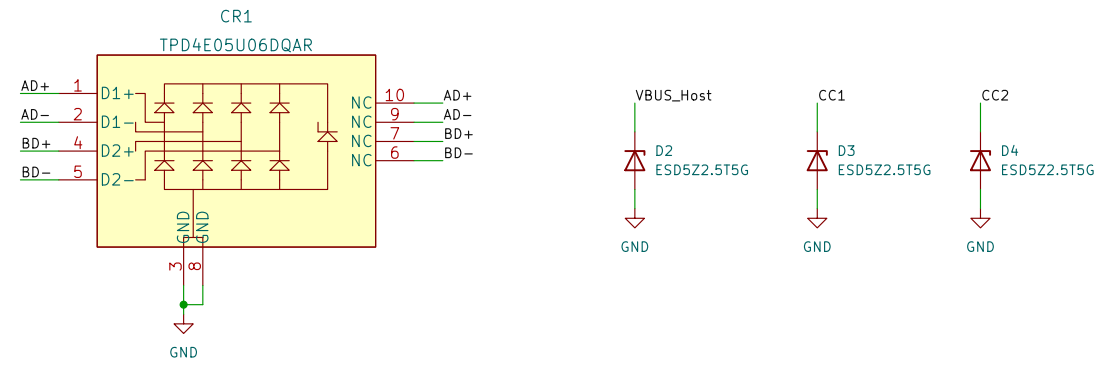


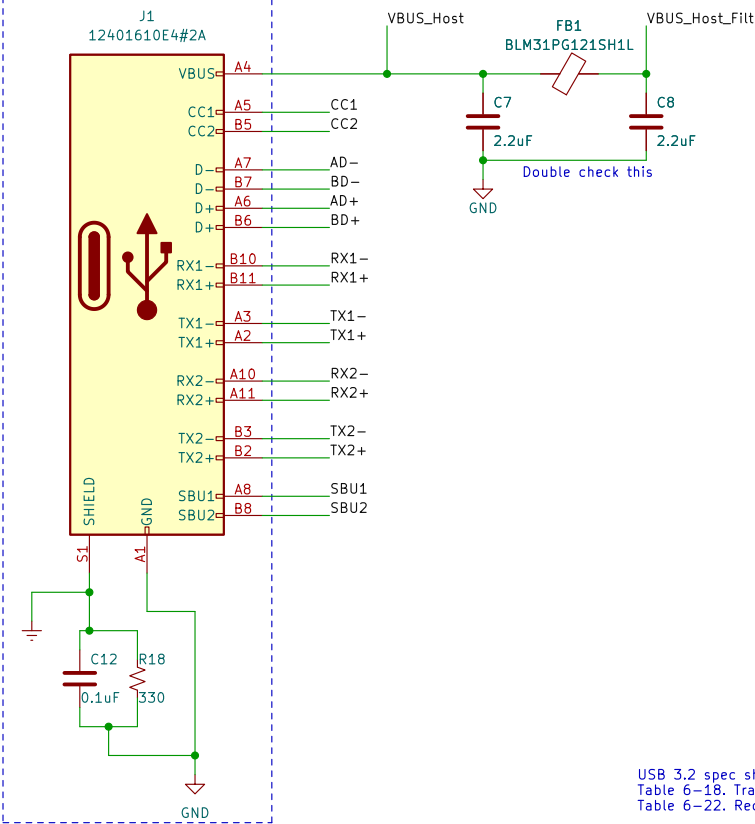
## ESD protection



NC pins used for straight through routing

## USB-C Host

## USB Type-C 3.2 Host



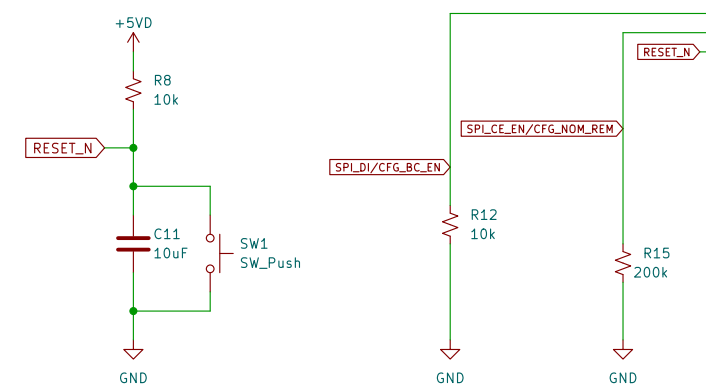
USB 3.2 spec sheet  
Table 6-19: Transmitter Normative Electrical Parameters  
Table 6-22: Receiver Normative Electrical Parameters

Microchip's AN2051  
Figure 6: UPS16GAM\_FACING\_PORT\_SWITCHED\_IMPLEMENTATION SCHEMATIC

## USB-A PORT1 & PORT2

## Optional spi flash memory

Hardware Design Checklist 8.1  
By Default USB5744 executes firmware from internal ROM  
Pins 38-42  
SMCLK -> 10k pull up; I2C slave interface (Hardware Design Checklist9.1)  
SMDAT -> 10k pull down; I2C slave interface  
CFG\_BC\_EN -> 10k pull down; Ports1&2 Battery Charging Enabled  
CFG\_NON\_REM -> 200k pull down; All downstream ports removable  
RESET\_N -> Button pull down;

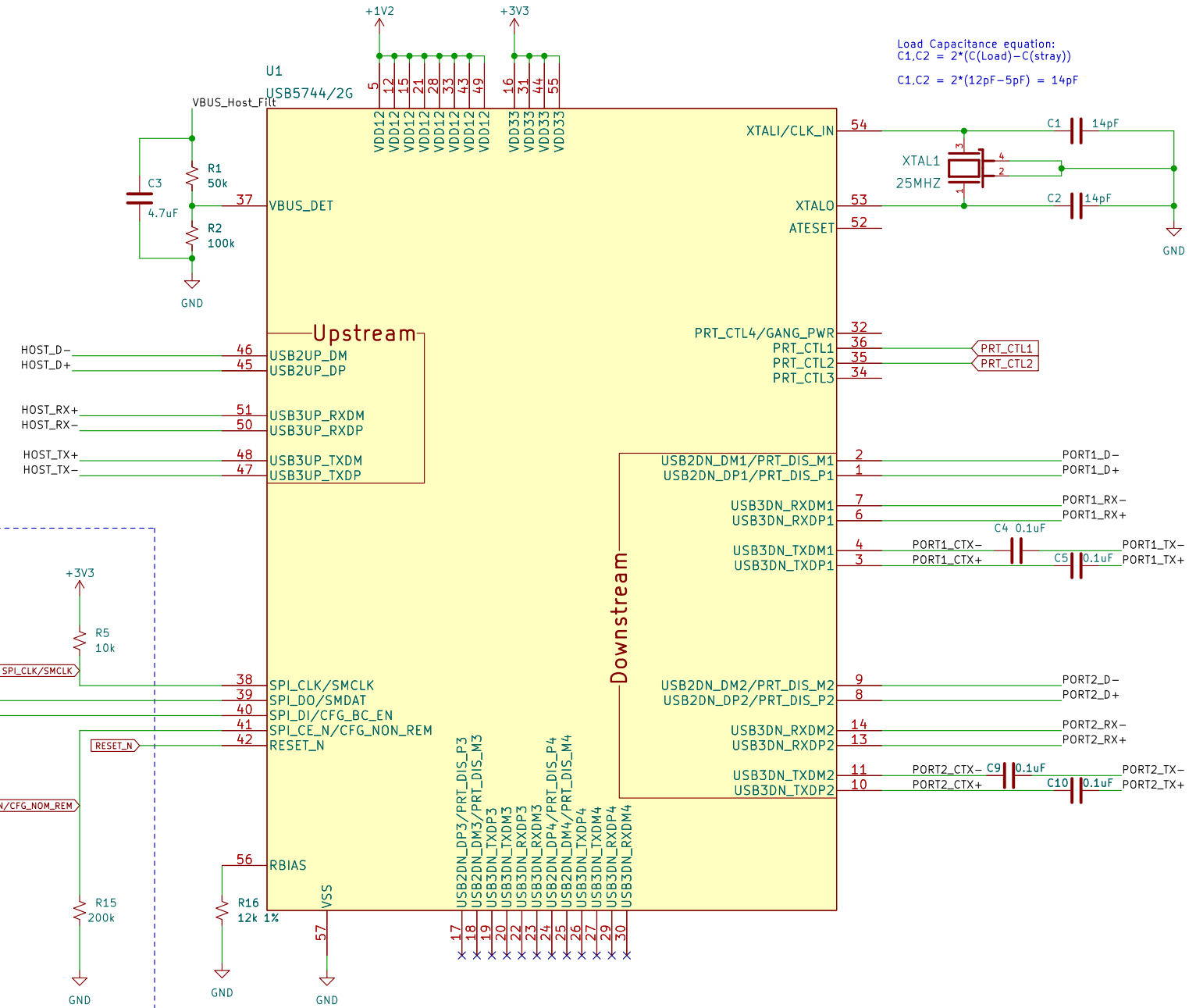


Hardware Design Checklist  
Table 9-3 Enables Battery Charging on Port 1 and 2  
Table 9-2. All ports Removable

## Power and pin headers

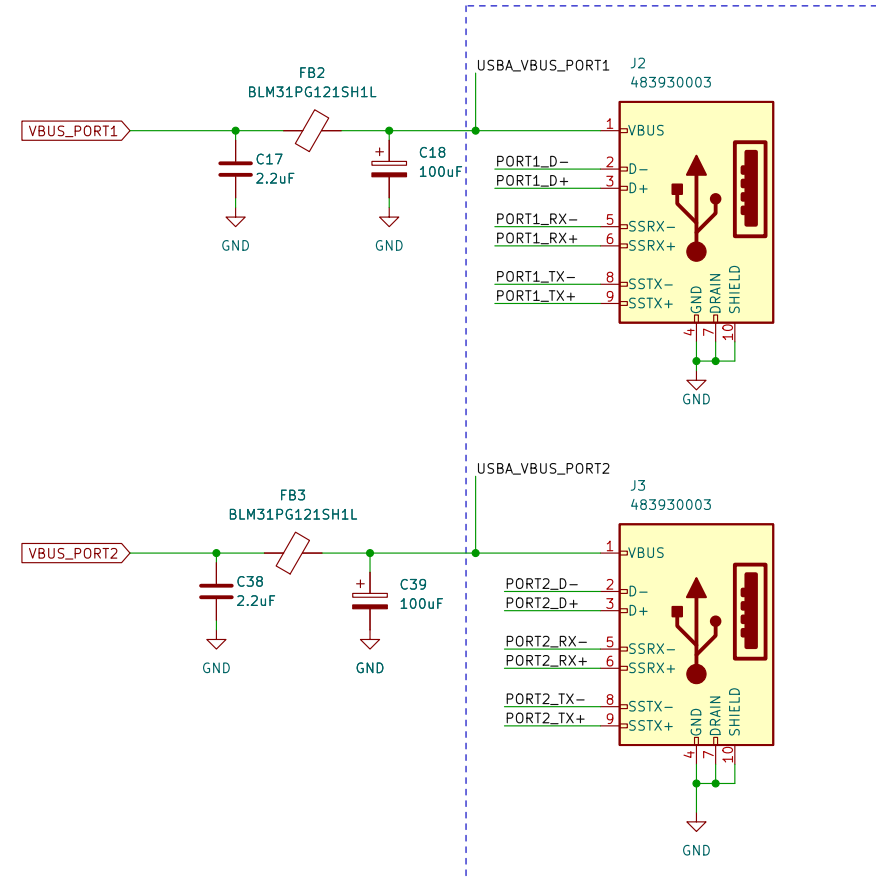


File: Power\_and\_pin\_headers.kicad\_sch



Load Capacitance equation:  
 $C1, C2 = 2 * (C(Load) - C(stray))$   
 $C1, C2 = 2 * (12pF - 5pF) = 14pF$

## Downstream Type-A 3.1



Exclusive Electronics

Sheet: /

File: USB-C-Hub.kicad\_sch

Title: IAN'S USB HUB

Size: A2 Date:

KiCad E.D.A. kicad (6.0.11)

Rev: 1.0

Id: 1/2