

Soft-start:  $42000 / 100000 = 0.42V/mS$   
 $5 / 0.42 = 11.9mS$   
 $R(ILIM) = 1k || 2k @ 1\% = 666.67 \approx 3039mA$

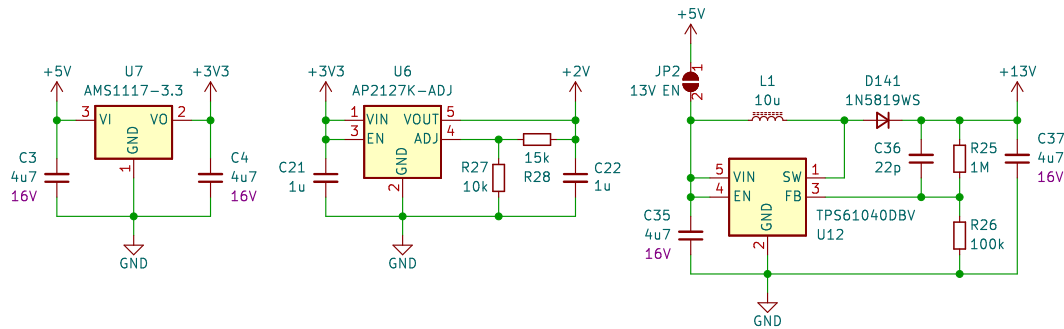
$0.005 * 3 = 15mV$  drop  
 A4 has gain of 200x  
 $15mV * 200 = 3V$   
 Voltage range is 0-3V

VBUS max is 5.5V  
 $5.5 * 15 / (10 + 15) = 3.3V$   
 Voltage range is 0-3.3V

OUT1	OUT2	ADVERTISEMENT
H	X	Default current
L	H	Med current (1.5A)
L	L	High current (3A)

Soft-start:  $42000 / 100000 = 0.42V/mS$   
 $5 / 0.42 = 11.9mS$

Default power (500mA):  $R(ILIM) = 12k || 6k8 = 4k34 @ 1\% \approx 501mA$   
 Med power (1500mA):  $R(ILIM) = 12k || 6k8 || 2k @ 1\% = 1k37 \approx 1501mA$   
 High power (3000mA):  $R(ILIM) = 12k || 6k8 || 2k || 4k7 || 2k @ 1\% = 693 \approx 2926mA$



Licensed under CC BY 4.0.

All capacitors 50V unless otherwise specified.

Created by Ariamelon (<https://github.com/Ariamelon/Honeydew/>)

Sheet:

File: PSU.kicad\_sch

**Title: Honeydew unified split ergonomic keyboard**

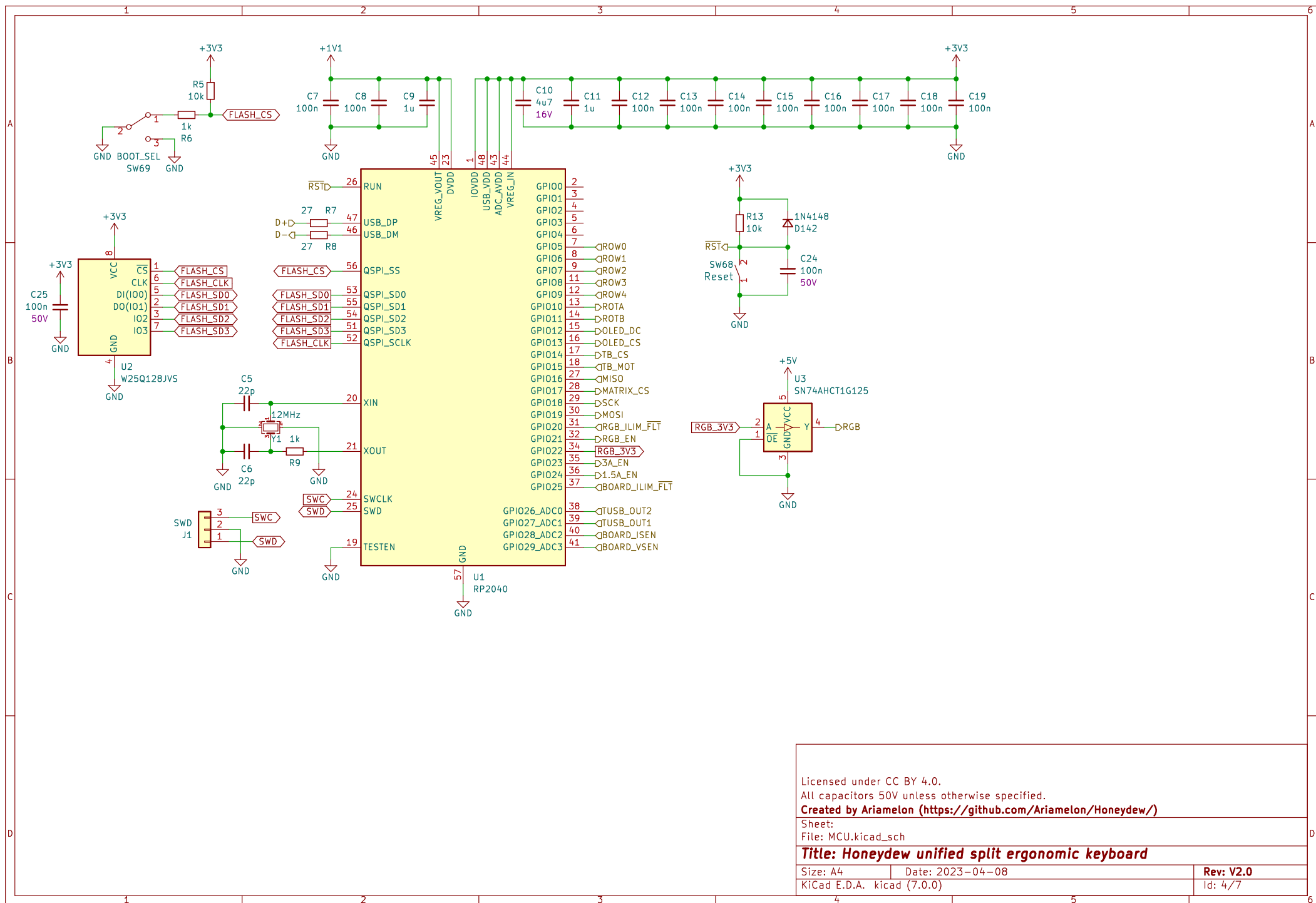
Size: A4

Date: 2023-04-08

Rev: V2.0

KiCad E.D.A. kicad (7.0.0)

Id: 3/7



Licensed under CC BY 4.0.

All capacitors 50V unless otherwise specified.

Created by Ariamelon (<https://github.com/Ariamelon/Honeydew/>)

Sheet:

File: MCU.kicad\_sch

**Title: Honeydew unified split ergonomic keyboard**

Size: A4 Date: 2023-04-08

KiCad E.D.A. kicad (7.0.0)

Rev: V2.0

Id: 4/7

