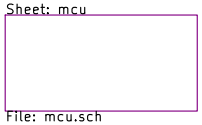

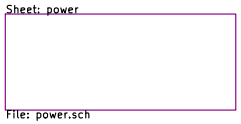

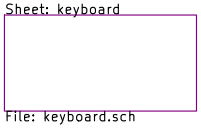

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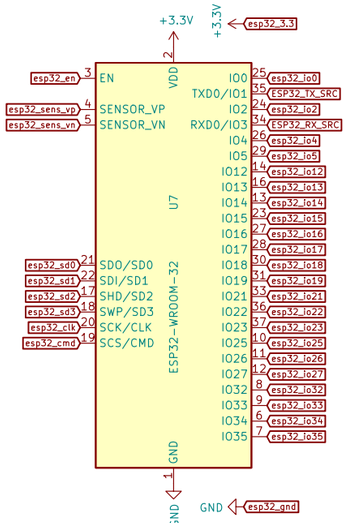
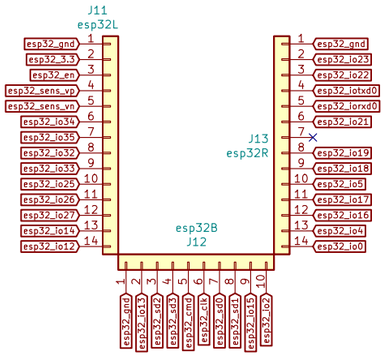
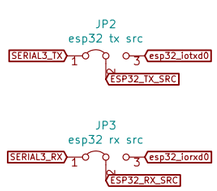
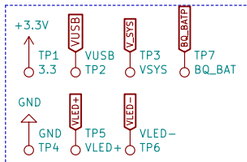
KiCad E.D.A. kicad 5.1.7-a382d34a887ubuntu20.04.1		Id: 1/4

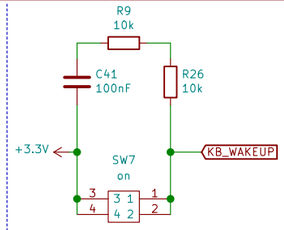






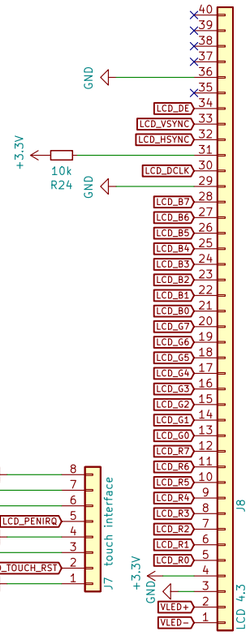


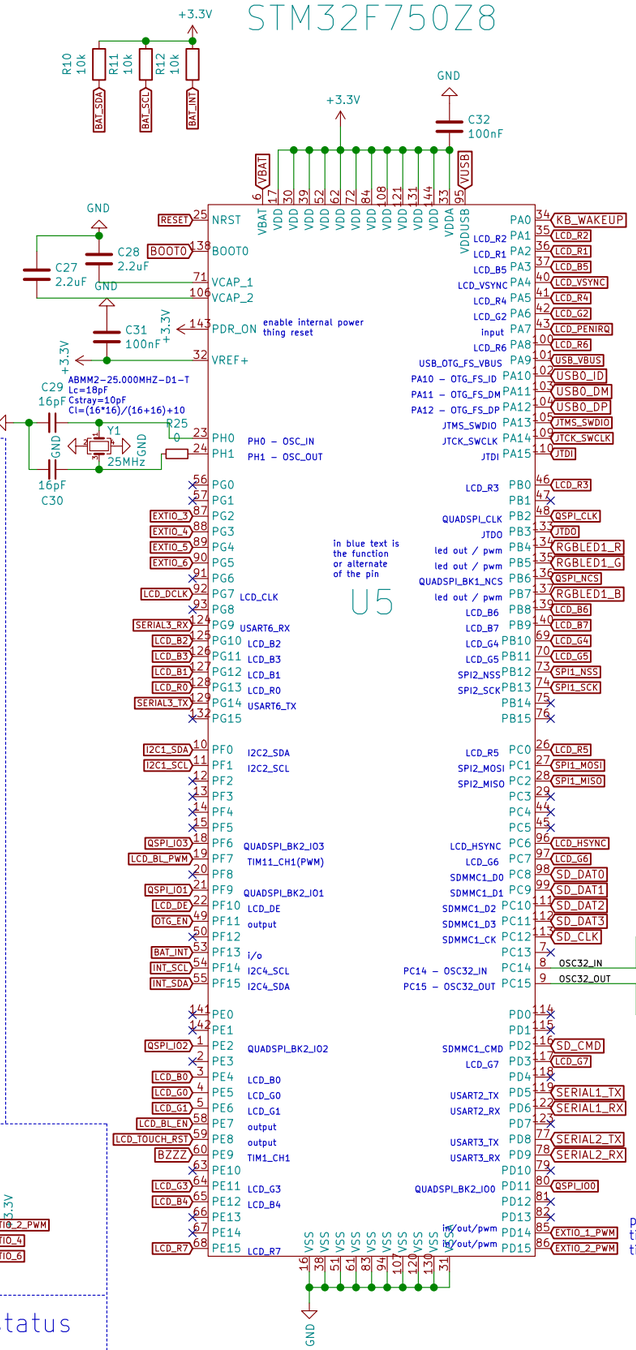
Testpoints



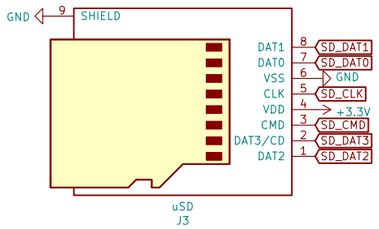
internal i2c (int_xxx):
6BH – Battery charger
20 – Keyboard matrix columns
21 – Keyboard matrix rows

user i2c (i2c1_xxx):
BA/BB or 28/29 – Touch display
(w/ jumper user or int)

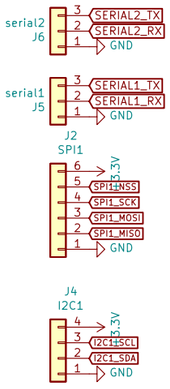




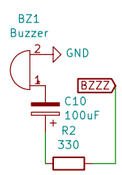
uSD card

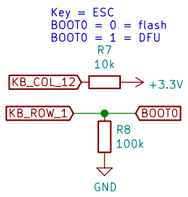


serial / i2c / etc

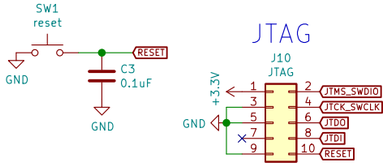


buzzer

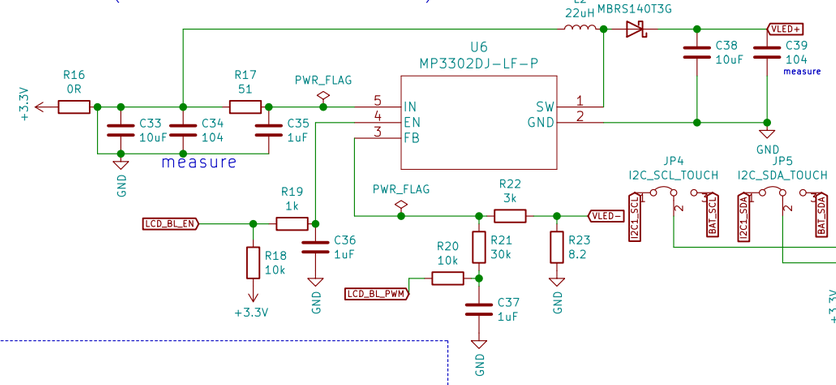




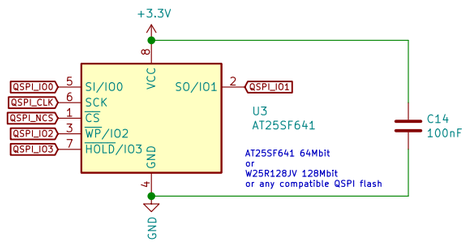
reset / dfu / boot



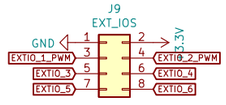
LCD (waveshare sku 16249)



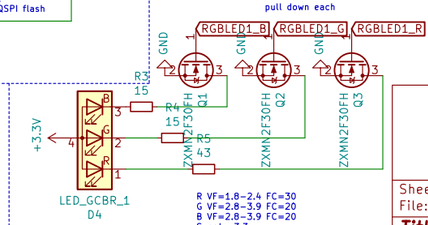
Flash



ext i/o



RGB Led status



TODO to validate:
– BOOT0 behavior
– WAKEUP through ON behavior
– RESET

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Title:		
Size: A3	Date:	**Rev:**
KiCad E.D.A. kicad 5.1.7-a382d34a887ubuntu20.04.1		Id: 2/4

KB_COL_1 KB_COL_2 KB_COL_3 KB_COL_4 KB_COL_5 KB_COL_6 KB_COL_7 KB_COL_8 KB_COL_9 KB_COL_10 KB_COL_11 KB_COL_12 KB_COL_13 KB_COL_14

KB_ROW_1 KB_ROW_2 KB_ROW_3 KB_ROW_4 KB_ROW_5 KB_ROW_6 KB_ROW_7 KB_ROW_8 KB_ROW_9 KB_ROW_10

SW2 lock · SW3 F1 · SW12 F2 · SW17 F3 · SW22 F4 · SW26 F5 · SW34 F6 · SW39 F7 · SW44 F8

SW4 Q · SW8 W · SW13 E · SW18 R · SW23 T · SW27 Y · SW31 U · SW35 I · SW40 O · SW45 P

SW5 A · SW9 S · SW14 D · SW19 F · SW24 G · SW28 H · SW32 J · SW36 K · SW41 L

SW6 CAPS · SW10 Z · SW15 X · SW20 C · SW25 V · SW29 B · SW33 N · SW37 M · SW42 zilde · SW46 enter

SW11 3rd · SW16 2nd · SW21 store · SW30 spc · SW38 equal · SW43 left arrow

SW47 2nd_r · SW57 esc · SW65 up

SW48 menu · SW66 left · SW75 right

SW49 clear · SW58 apps · SW67 down

SW50 ln · SW68 enter_r

SW51 sin · SW59 cos · SW69 tan · SW76 ^

SW52 (· SW60) · SW70 . · SW77 ÷

SW53 7 · SW61 8 · SW71 9 · SW78 ×

SW54 4 · SW62 5 · SW72 6 · SW79 −

SW55 1 · SW63 2 · SW73 3 · SW80 +

SW56 0 · SW64 dot · SW74 negative · SW81 enter

+3.3V

C40 0.1uF

GND

U3 MCP23017_SS — columns

U5 MCP23017_SS — rows

	SDA	SCK	INTB	INTA	RESET	A2	A1	A0	VDD	VSS	GPB0	GPB1	GPB2	GPB3	GPB4	GPB5	GPB6	GPB7	GPA0	GPA1	GPA2	GPA3	GPA4	GPA5	GPA6	GPA7
columns	13	12	19	20	18	17	16	15	9	10	1	2	3	4	5	6	7	8	21	22	23	24	25	26	27	28
rows	13	12	19	20	18	17	16	15	9	10	1	2	3	4	5	6	7	8	21	22	23	24	25	26	27	28

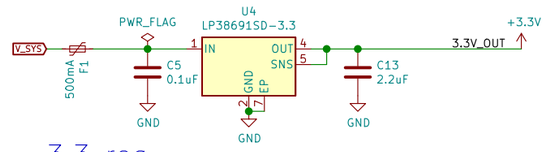
columns: INT_SDA, INT_SCL, +3.3V, GND; SDA, SCK, INTB, INTA, RESET, A2, A1, A0, VDD, VSS; GPB0 KB_COL_1 … GPB7 KB_COL_8; GPA0 KB_COL_9 … GPA6 KB_COL_14; GPA7 NC

rows: INT_SDA, INT_SCL, +3.3V, GND; SDA, SCK, INTB, INTA, RESET, A2, A1, A0, VDD, VSS; GPB0 KB_ROW_1 … GPB7 KB_ROW_8; GPA0 KB_ROW_9 … GPA7 KB_ROW_10

COL are inputs, pull-up sw
ROW output

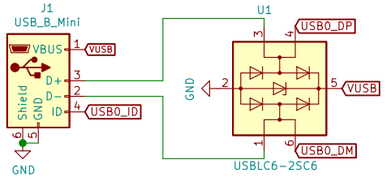
Switches: FSM4JSMAATR

Sheet: /keyboard/	
File: keyboard.sch	
Title:	
Size: A3	Date:
KiCad E.D.A. kicad 5.1.7-a382d34a887ubuntu20.04.1	**Rev:** Id: 3/4

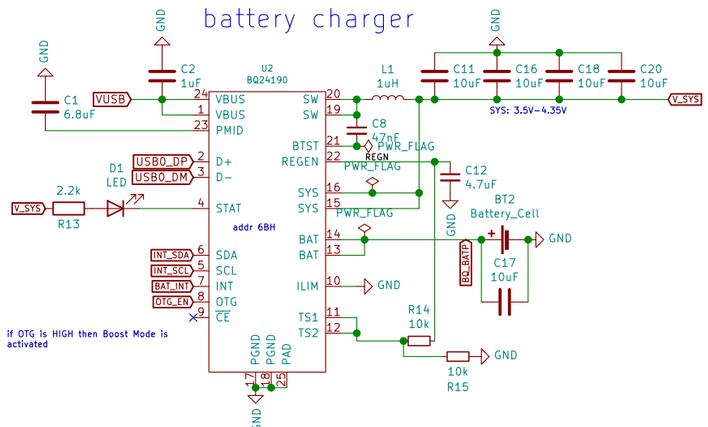


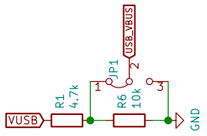
3.3 reg

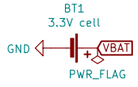
USB OTG



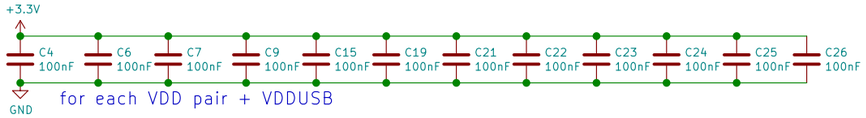
battery charger







RTC juice



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