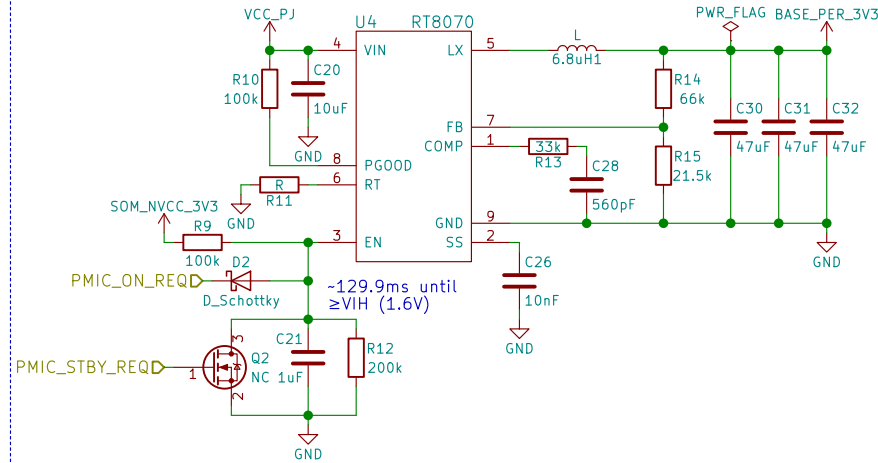
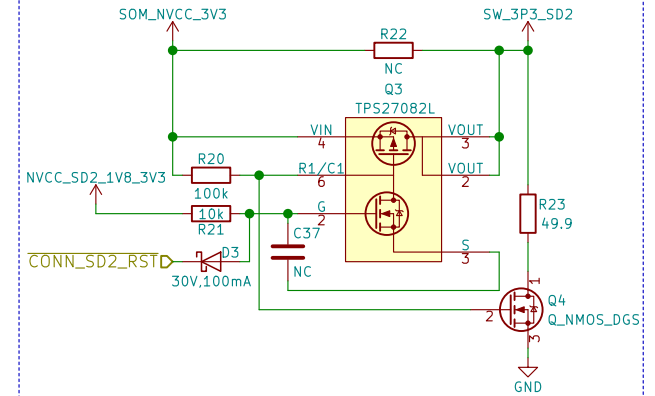


3.3V/3A

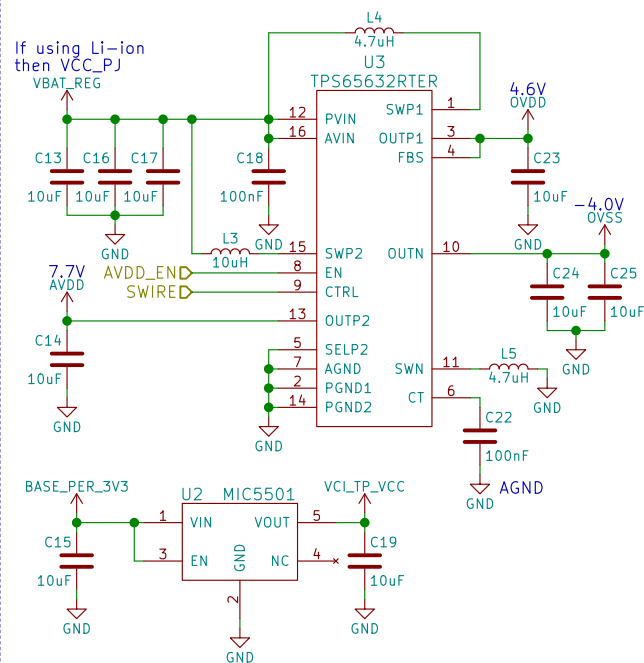
When VBAT can fall below 3.3V use TPS63020 instead!



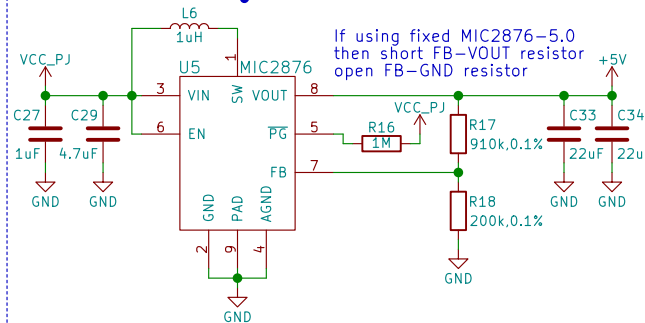
SD POWER



AMOLED POWER

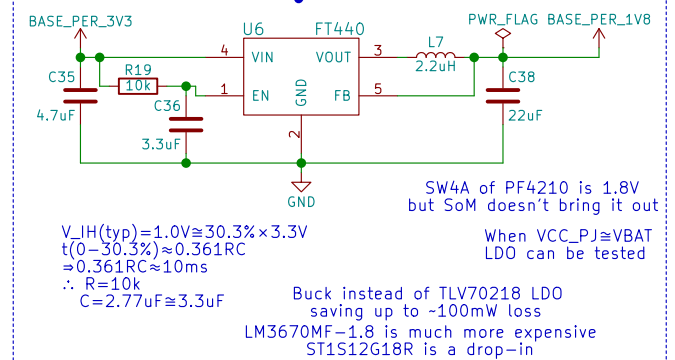


5.0V/800mA



Cheaper, more efficient, smaller, and simpler than RT6150A
Explicitly mentions USB/smartphone application

1.8V/600mA



$V_{IH}(typ)=1.0V \approx 30.3\% \times 3.3V$
 $t(0-30.3\%) \approx 0.361RC$
 $\approx 0.361RC \approx 10ms$
 $\therefore R=10k$
 $C=2.77uF \approx 3.3uF$

SW4A of PF4210 is 1.8V
but SoM doesn't bring it out
When VCC_PJ \approx VBAT
LDO can be tested

Buck instead of TLV70218 LDO
saving up to ~100mW loss
LM3670MF-1.8 is much more expensive
ST1S12G18R is a drop-in

GNU GPLv3
Copyright 2018
Purism SPC

Sheet: /Power/
File: power.sch

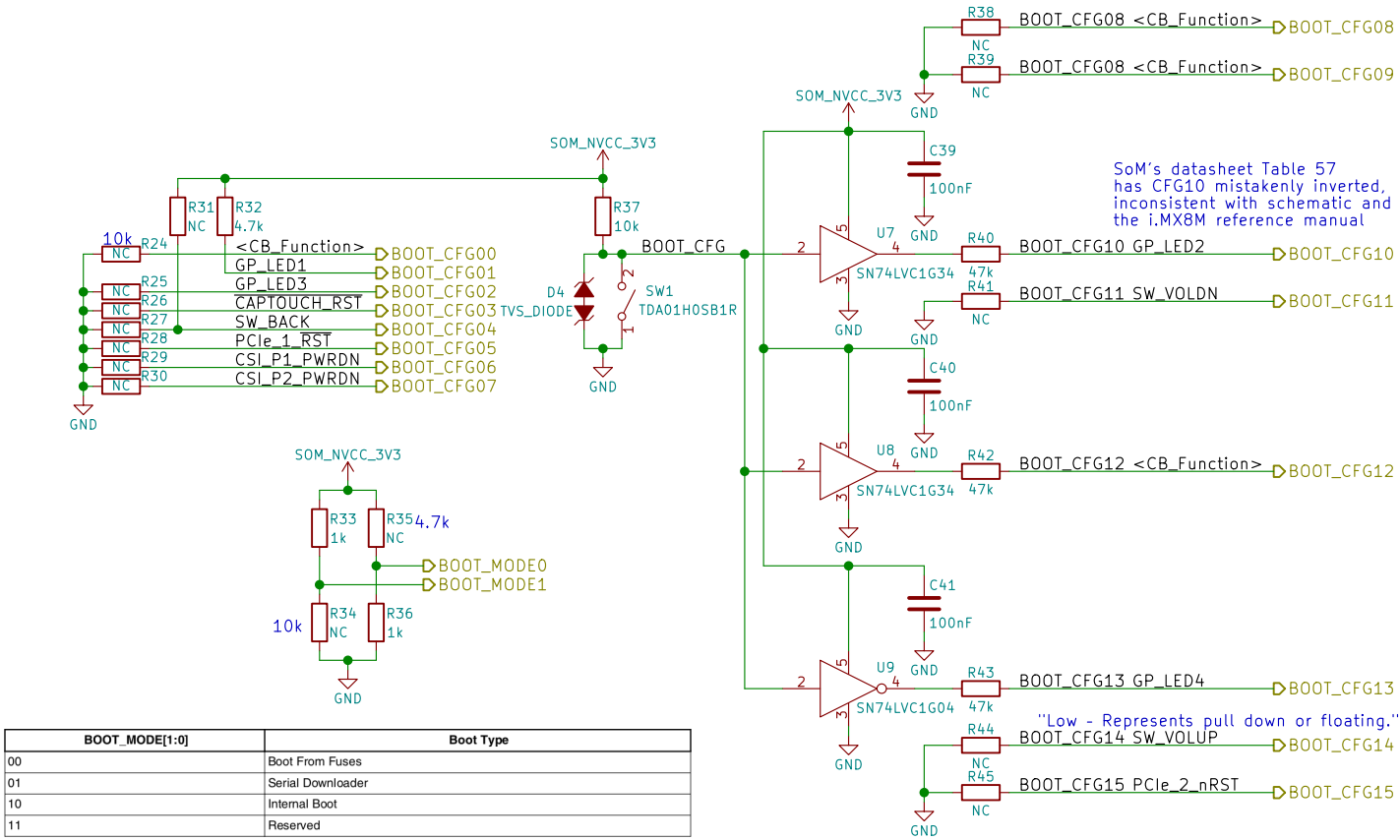
Title: Power

Size: A4
KiCad E.D.A. kicad 4.0.7

Date: 2018-04-16

Rev: v0.1.0
Id: 3/14

BOOT_CFG[14:12]			Boot device		
001			SD/eSD		
010			MMC/eMMC		
011			NAND		
Fuse	Config	Definition	GPIO ¹	Shipped value	Settings
BOOT_CFG[11:10]	OEM	USDHC port selection	Yes	00	00 - USDHC-1 01 - USDHC-2 10 - USDHC-3 else - reserved



GNU GPLv3
Copyright 2018

Purism SPC

Sheet: /Boot Config/
File: boot.sch

Title: Boot Configuration

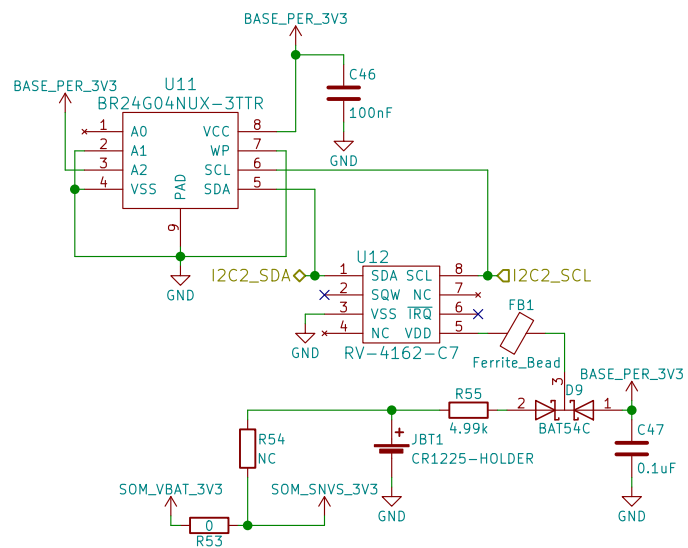
Size: A4 Date: 2018-04-16

KiCad E.D.A. kicad 4.0.7

Rev: v0.1.0

Id: 4/14

Id: 5/14



GNU GPLv3
Copyright 2018

Purism SPC

Sheet: /RTC Battery/
File: rtc.sch

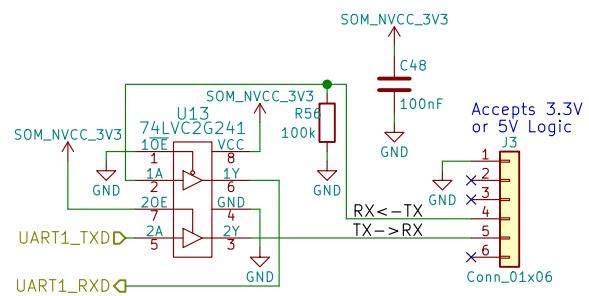
Title: RTC Battery

Size: A4 Date: 2018-04-16

KiCad E.D.A. kicad 4.0.7

Rev: v0.1.0

Id: 6/14



GNU GPLv3
Copyright 2018

Purism SPC

Sheet: /UART Debug/
File: uart.sch

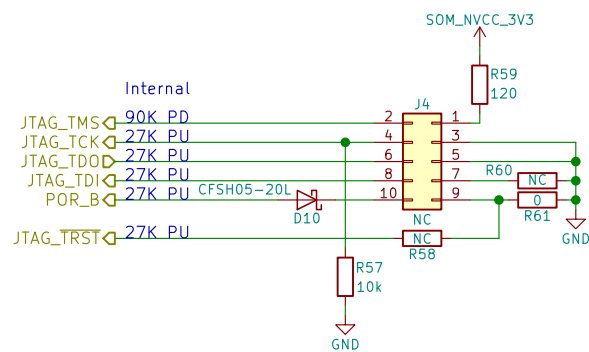
Title: UART Debug

Size: A4 Date: 2018-04-16

KiCad E.D.A. kicad 4.0.7

Rev: v0.1.0

Id: 7/14



GNU GPLv3
Copyright 2018

Purism SPC

Sheet: /JTAG/
File: jtag.sch

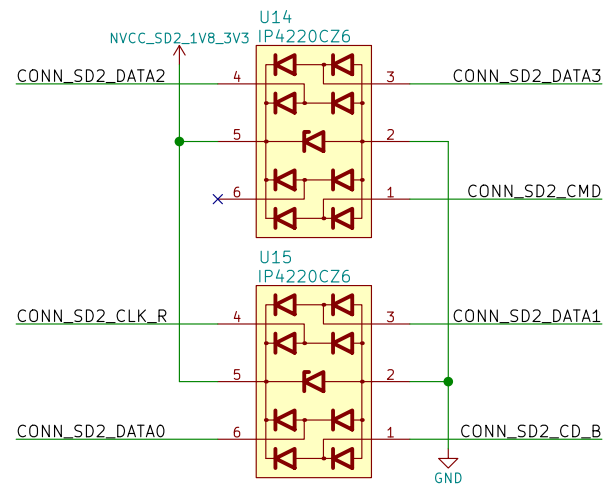
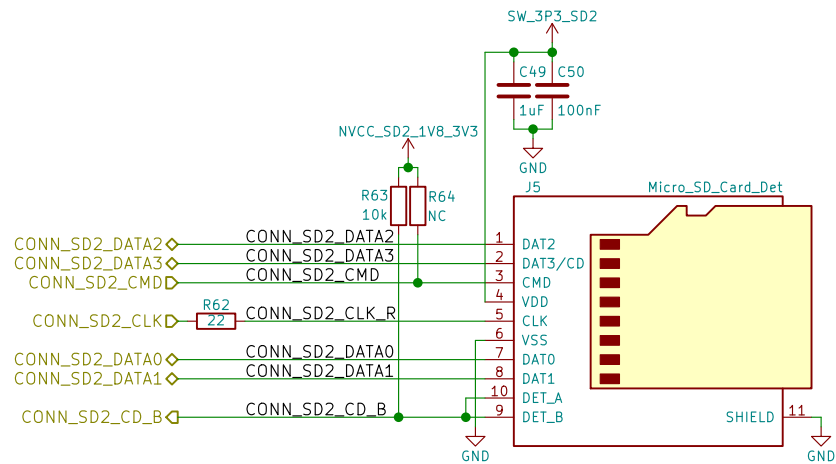
Title: JTAG

Size: A4 Date: 2018-04-16

KiCad E.D.A. kicad 4.0.7

Rev: v0.1.0

Id: 8/14



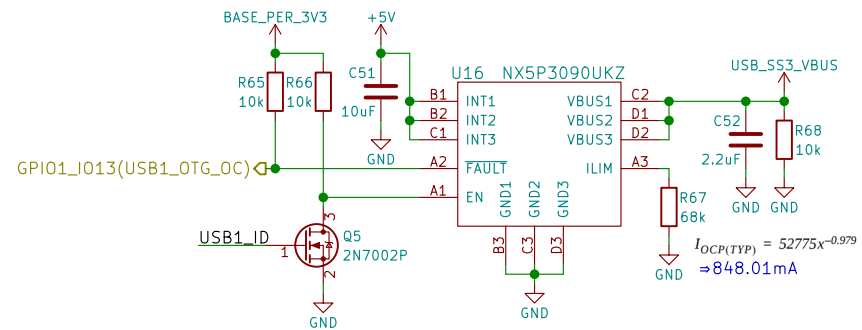
GNU GPLv3
Copyright 2018
Purism SPC
Sheet: /uSD Card/
File: sd.sch

Title: uSD Card

Size: A4 Date: 2018-04-16
KiCad E.D.A. kicad 4.0.7

Rev: v0.1.0
Id: 9/14

USB1_ID



GNU GPLv3
Copyright 2018

Purism SPC

Sheet: /USB/
File: usb.sch

Title: USB

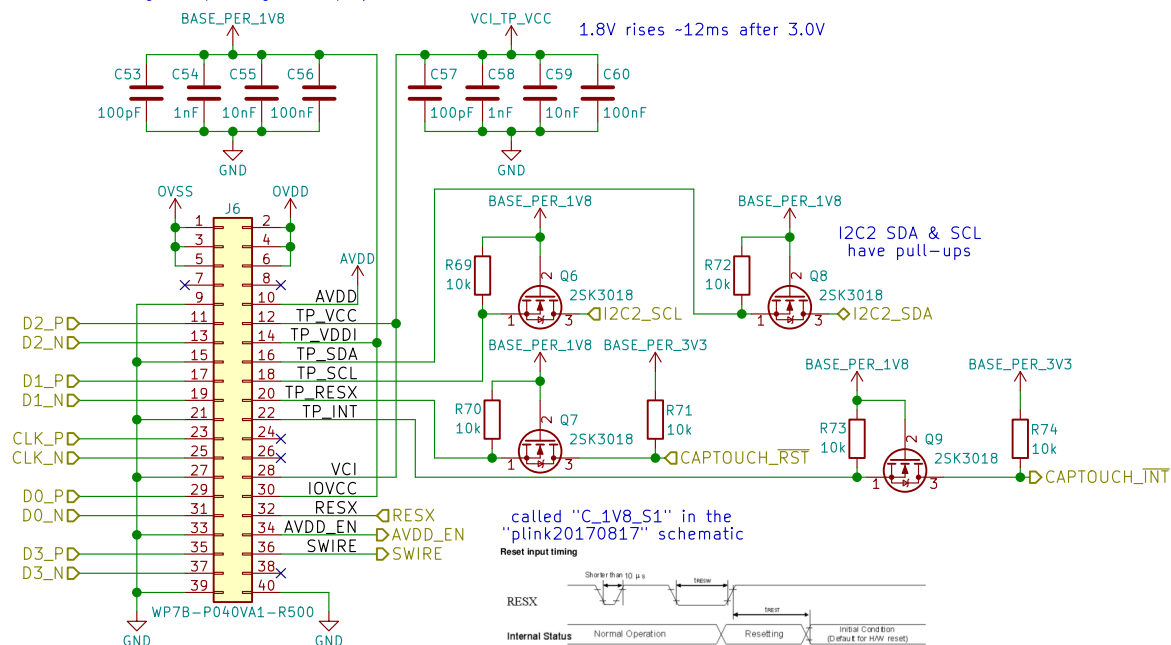
Size: A4 Date: 2018-04-16

KiCad E.D.A. kicad 4.0.7

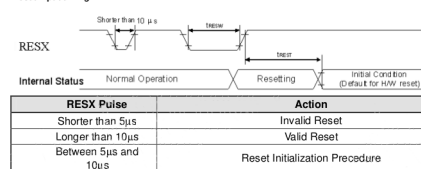
Rev: v0.1.0

Id: 10/14

Using H546DLB01.1 pin assignment may need to be changed depending on display used



Reset input timing



GNU GPLv3
Copyright 2018

Purism SPC

Sheet: /MIPI DSI/
File: mipi_dsi.sch

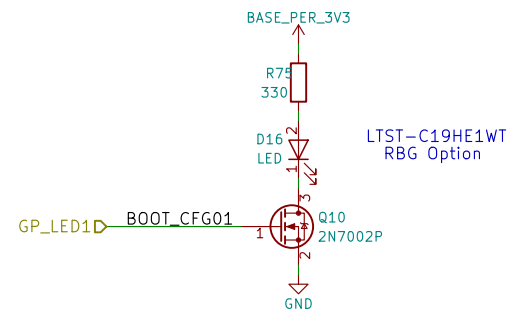
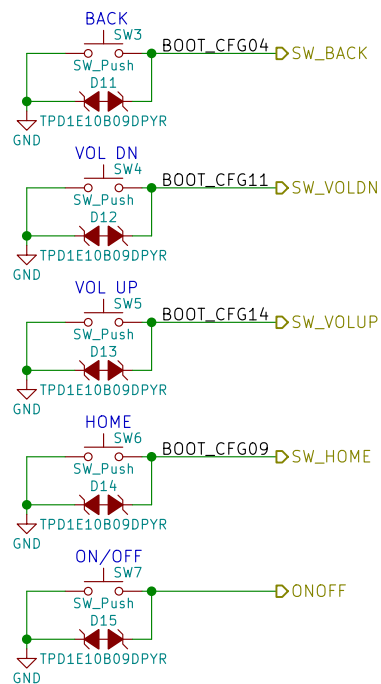
Title: MIPI DSI

Size: A4 Date: 2018-04-16

KiCad E.D.A. kicad 4.0.7

Rev: v0.1.0

Id: 11/14



GNU GPLv3
Copyright 2018

Purism SPC

Sheet: /Buttons & LED/
File: buttons_led.sch

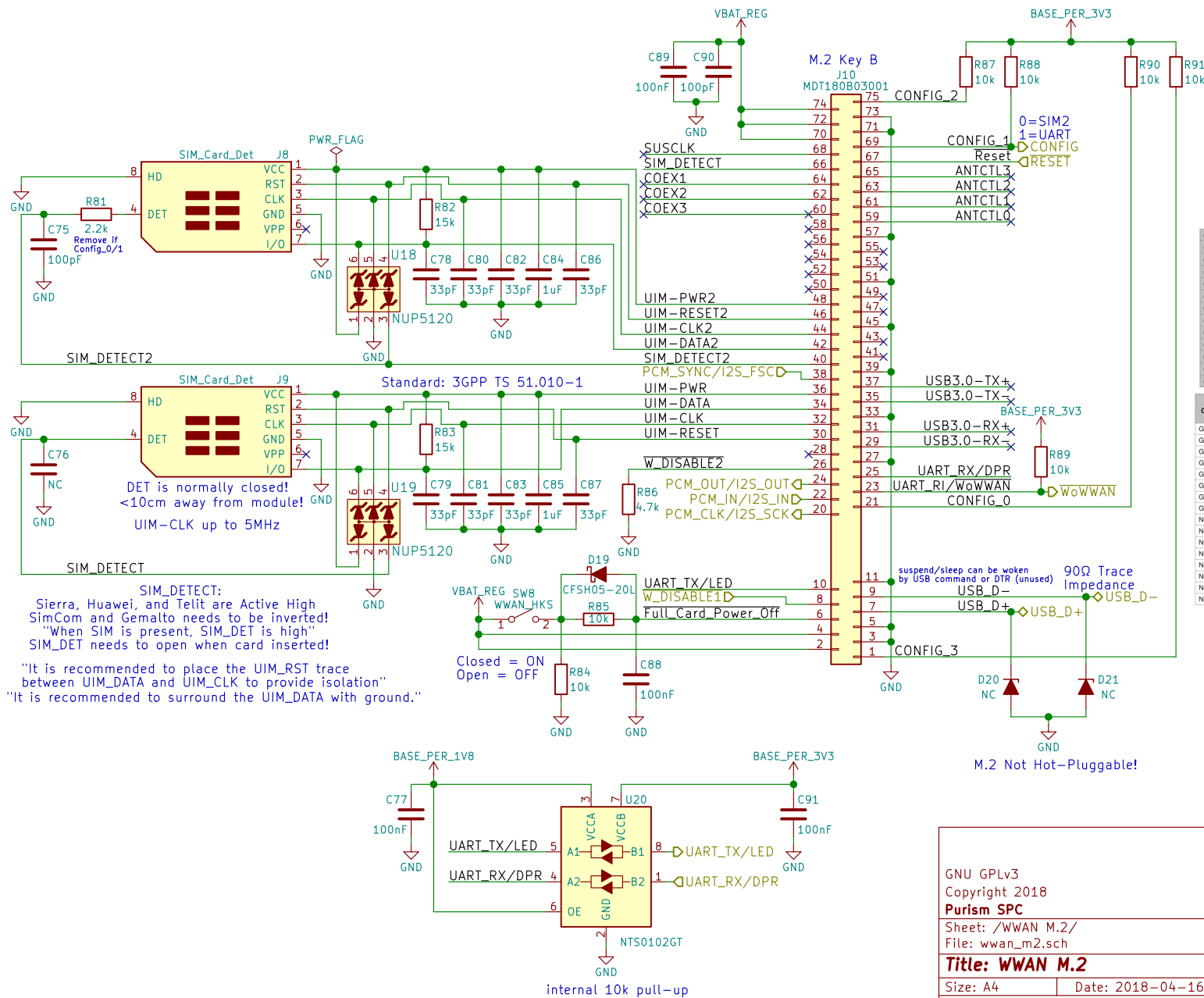
Title: Buttons & LED

Size: A4 Date: 2018-04-16

KiCad E.D.A. kicad 4.0.7

Rev: v0.1.0

Id: 12/14



Some modems are NC
for the USB3.0 interface
Typically host support
for USB3.0 is optional
Some modems require
the USB3.0 interface
USB3.0 unused with
Gemalto and SimCom
Some modules do
GNSS over USB

Pin	Assumes				State
	SIM2	UART	SIM2	UART	
Port Config. 0 ¹	Port Config. 1 ²	Port Config. 2 ³	Port Config. 3 ⁴		
GPIO_0 40	GNSS_SCL	GNSS_SCL	SIM_DET2	HSIC_Data	
GPIO_1 42	GNSS_SDA	GNSS_SDA	UIM_DTA2	HSIC_Strobe	
GPIO_2 44	GNSS_IRQ	GNSS_IRQ	UIM_CLK2	IPC_0	
GPIO_3 46	SYSCLOCK	GNSS_0	UIM_RST2	IPC_1	
GPIO_4 48	TX_BLANKING	GNSS_1	UIM_PWR2	IPC_2	
GPIO_5 20	AUDIO_0	AUDIO_0	RFU	Audio_0	
GPIO_6 22	AUDIO_1	AUDIO_1	RFU	Audio_1	
GPIO_7 24	AUDIO_2	AUDIO_2	RFU	IPC_3/Audio_2	
GPIO_8 28	AUDIO_3	AUDIO_3	RFU	IPC_4/Audio_3	
GPIO_9 10	LED#1	LED#1	LED#1	IPC_5	
GPIO_10 26	W_Disable2#	W_Disable2#	W_Disable2#	IPC_6	
GPIO_11 23	Wake_On_WWAN	Wake_On_WWAN	Wake_On_WWAN	IPC_7	
GPIO_12 25	DPR	DPR	DPR	IPC_8	

CONFIG_0 (Pin 21)	CONFIG_1 (Pin 69)	CONFIG_2 (Pin 75)	CONFIG_3 (Pin 1)	Module Type and Main Host Interface ¹	Port Configuration ²	State
GND	GND	GND	GND	SSD - SATA	N/A	
GND	NC	GND	GND	SSD - PCIe	N/A	
GND	GND	NC	GND	WWAN - PCIe	0	0
GND	NC	NC	GND	WWAN - PCIe	1	2
GND	GND	GND	NC	WWAN - USB 3.0	0	5
GND	NC	GND	NC	WWAN - USB 3.0	1	4
GND	GND	NC	NC	WWAN - USB 3.0	2	3
GND	NC	NC	NC	WWAN - USB 3.0	3	6
NC	GND	GND	GND	WWAN - SSIC	0	7
NC	NC	GND	GND	WWAN - SSIC	1	8
NC	GND	NC	GND	WWAN - SSIC	2	9
NC	NC	NC	GND	WWAN - SSIC	3	10
NC	GND	GND	NC	WWAN - PCIe	2	11
NC	NC	GND	NC	WWAN - PCIe	3	12
NC	GND	NC	RFU	N/A	N/A	14
NC	NC	NC	NC	No Module Present	N/A	15

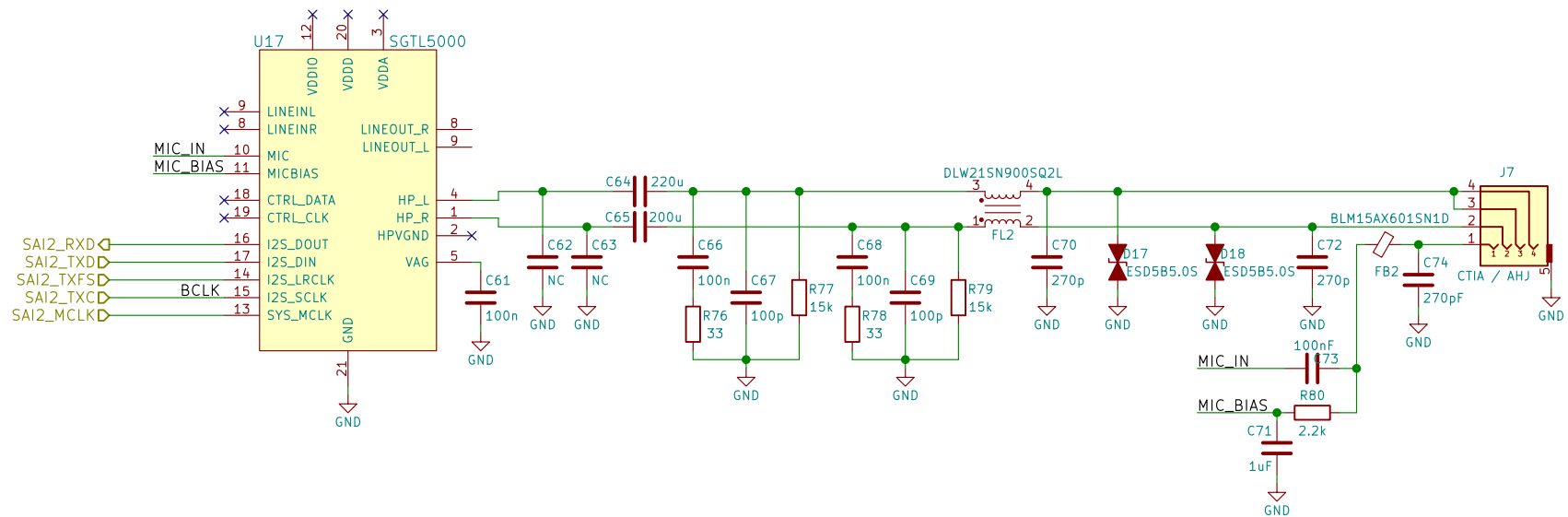
GNU GPLv3
Copyright 2018
Purism SPC

Sheet: /WWAN M.2/
File: wwan_m2.sch

Title: WWAN M.2

Size: A4 Date: 2018-04-16
KiCad E.D.A. kicad 4.0.7

Rev: v0.1.0
Id: 13/14



GNU GPLv3
Copyright 2018

Purism SPC

Sheet: /Audio/
File: audio.sch

Title: Audio

Size: A4 Date: 2018-04-16

KiCad E.D.A. kicad 4.0.7

Rev: v0.1.0

Id: 14/14