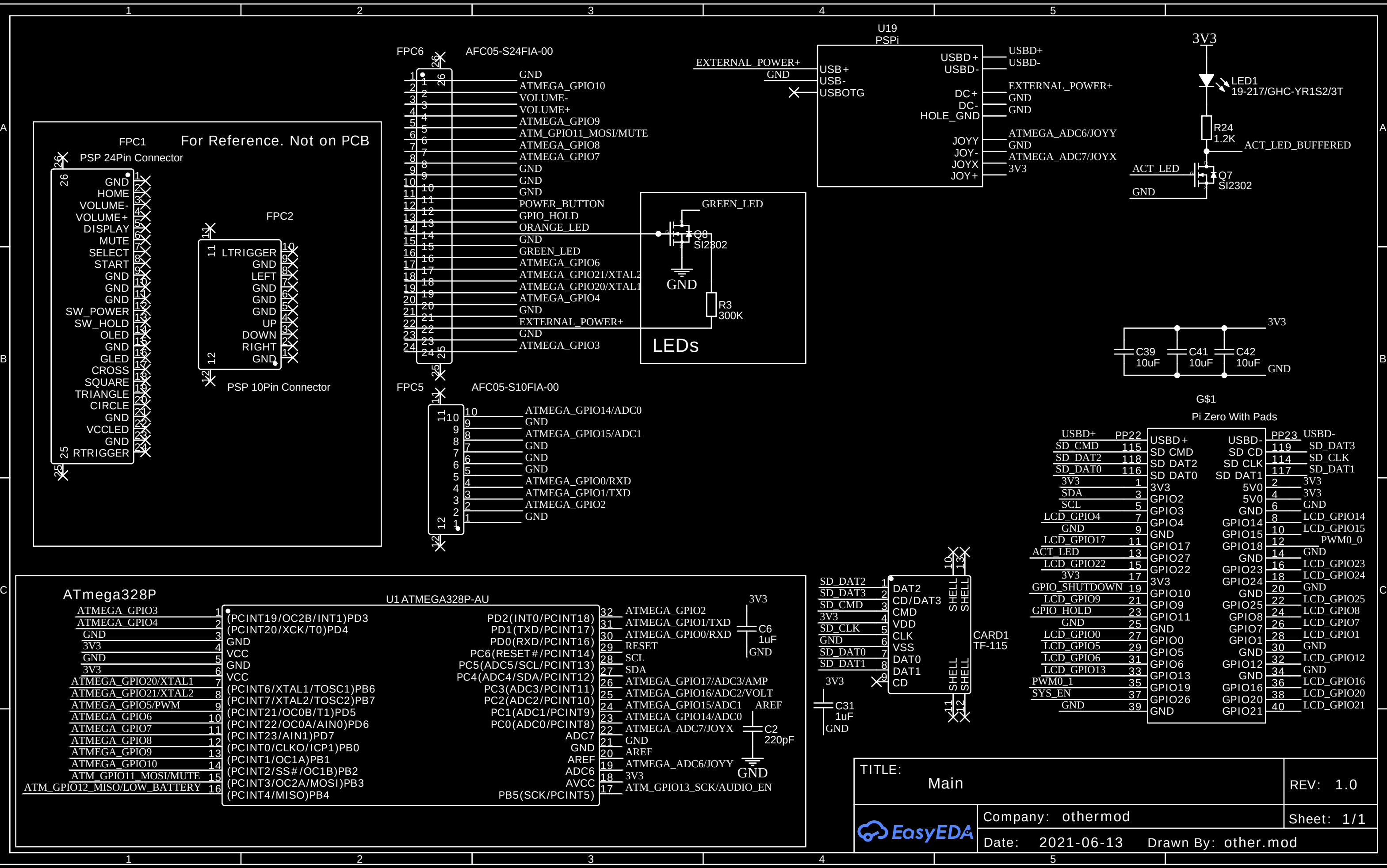




ATmega328P

ATMEGA_GPIO3	1
ATMEGA_GPIO4	2
GND	3
3V3	4
GND	5
3V3	6
ATMEGA_GPIO20/XTAL1	7
ATMEGA_GPIO21/XTAL2	8
ATMEGA_GPIO5/PWM	9
ATMEGA_GPIO6	10
ATMEGA_GPIO7	11
ATMEGA_GPIO8	12
ATMEGA_GPIO9	13
ATMEGA_GPIO10	14
ATM_GPIO11_MOSI/MUTE	15
ATM_GPIO12_MISO/LOW_BATTERY	16

(PCINT19/OC2B/INT1)PD3	17
(PCINT20/XCK/T0)PD4	18
GND	19
VCC	20
GND	21
VCC	22
(PCINT6/XTAL1/TOSC1)PB6	23
(PCINT7/XTAL2/TOSC2)PB7	24
(PCINT21/OC0B/T1)PD5	25
(PCINT22/OC0A/AIN0)PD6	26
(PCINT23/AIN1)PD7	27
(PCINT0/CLKO/ICP1)PB0	28
(PCINT1/OC1A)PB1	29
(PCINT2/SS#/OC1B)PB2	30
(PCINT3/OC2A/MOSI)PB3	31
(PCINT4/MISO)PB4	32

U1 ATmega328P-AU

PD2(INT0/PCINT18)	32	ATMEGA_GPIO2	32
PD1(TXD/PCINT17)	31	ATMEGA_GPIO1/TXD	31
PD0(RXD/PCINT16)	30	ATMEGA_GPIO0/RXD	30
PC6(RESET#/PCINT14)	29	RESET	29
PC5(ADC5/SCL/PCINT13)	28	SCL	28
PC4(ADC4/SDA/PCINT12)	27	SDA	27
PC3(ADC3/PCINT11)	26	ATMEGA_GPIO17/ADC3/AMP	26
PC2(ADC2/PCINT10)	25	ATMEGA_GPIO16/ADC2/VOLT	25
PC1(ADC1/PCINT9)	24	ATMEGA_GPIO15/ADC1	24
PC0(ADC0/PCINT8)	23	ATMEGA_GPIO14/ADC0	23
ADC7	22	ATMEGA_ADC7/JOYX	22
GND	21	GND	21
AREF	20	AREF	20
ADC6	19	ATMEGA_ADC6/JOYY	19
AVCC	18	3V3	18
PB5(SCK/PCINT5)	17	ATM_GPIO13_SCK/AUDIO_EN	17

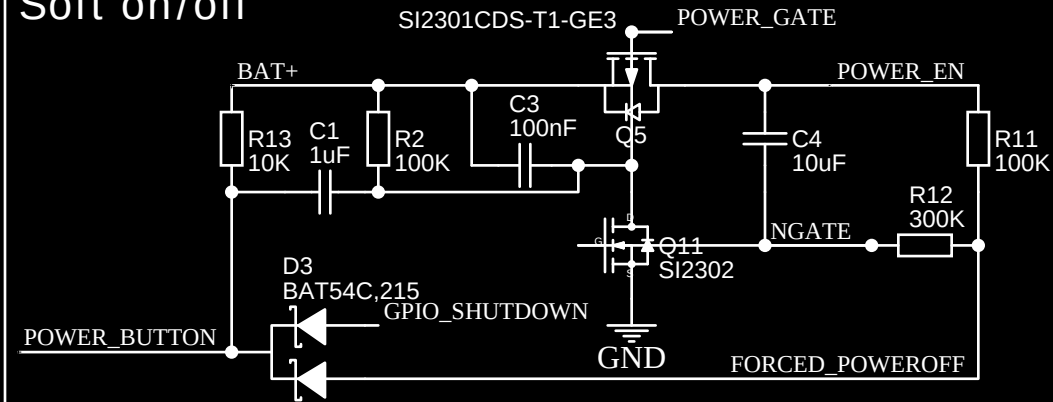
SD_DAT2	1	DAT2	1
SD_DAT3	2	CD/DAT3	2
SD_CMD	3	CMD	3
3V3	4	VDD	4
SD_CLK	5	CLK	5
GND	6	VSS	6
SD_DAT0	7	DAT0	7
SD_DAT1	8	DAT1	8
3V3	9	CD	9

CARD1
TF-115

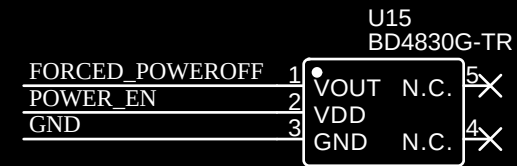
USB D+	PP22	USB D-	PP23	USB D+	PP23	USB D-
SD_CMD	115	SD CMD	115	SD_CMD	115	SD_CMD
SD_DAT2	118	SD DAT2	118	SD_DAT2	118	SD_DAT2
SD_DAT0	116	SD DAT0	116	SD_DAT0	116	SD_DAT0
3V3	1	3V3	1	3V3	1	3V3
SDA	3	GPIO2	3	SDA	3	GPIO2
SCL	5	GPIO3	5	SCL	5	GPIO3
LCD_GPIO4	7	GPIO4	7	LCD_GPIO4	7	GPIO4
GND	9	GND	9	GND	9	GND
LCD_GPIO17	11	GPIO17	11	LCD_GPIO17	11	GPIO17
ACT_LED	13	GPIO27	13	ACT_LED	13	GPIO27
LCD_GPIO22	15	GPIO22	15	LCD_GPIO22	15	GPIO22
3V3	17	3V3	17	3V3	17	3V3
GPIO_SHUTDOWN	19	GPIO10	19	GPIO_SHUTDOWN	19	GPIO10
LCD_GPIO9	21	GPIO9	21	LCD_GPIO9	21	GPIO9
GPIO_HOLD	23	GPIO11	23	GPIO_HOLD	23	GPIO11
GND	25	GND	25	GND	25	GND
LCD_GPIO0	27	GPIO0	27	LCD_GPIO0	27	GPIO0
LCD_GPIO5	29	GPIO5	29	LCD_GPIO5	29	GPIO5
LCD_GPIO6	31	GPIO6	31	LCD_GPIO6	31	GPIO6
LCD_GPIO13	33	GPIO13	33	LCD_GPIO13	33	GPIO13
PWM0_1	35	GPIO19	35	PWM0_1	35	GPIO19
SYS_EN	37	GPIO26	37	SYS_EN	37	GPIO26
GND	39	GND	39	GND	39	GND

TITLE: Main		REV: 1.0
EasyEDA	Company: othermod	Sheet: 1/1
	Date: 2021-06-13	Drawn By: other.mod

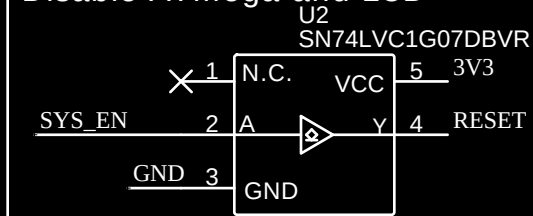
Soft on/off



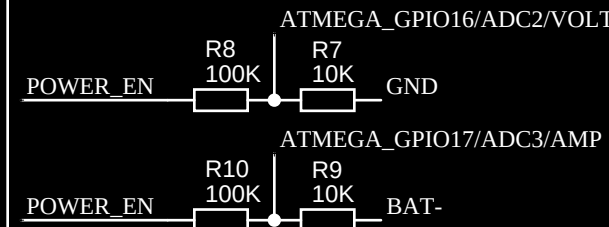
Emergency Poweroff



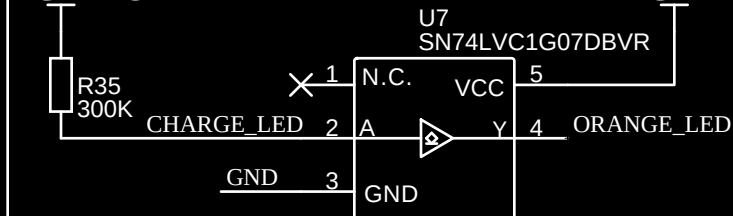
Disable ATmega and LCD



Voltage/Amperage Detection

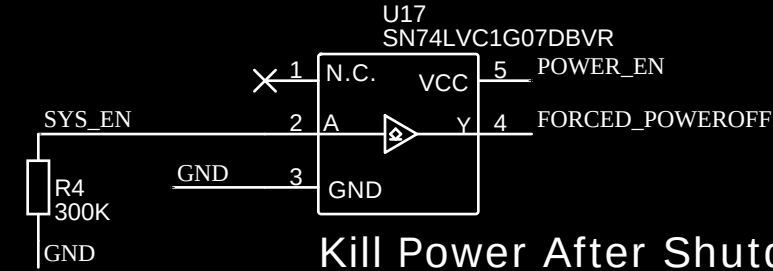


CHARGE+



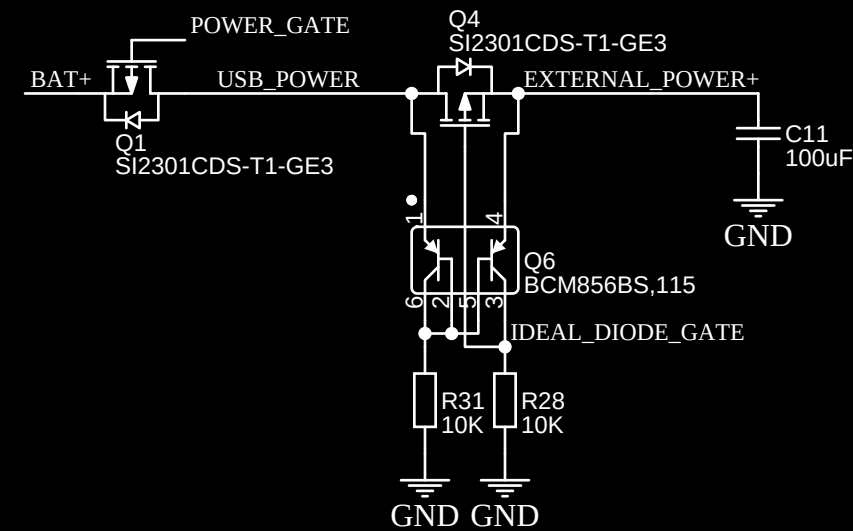
Buffer on TP4056 Charging LED
used bc some versions of TP4056 suck

Kill Power After Shutdown

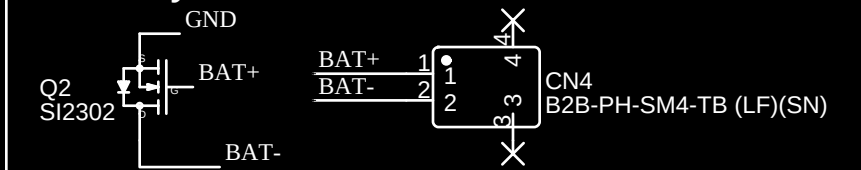


Ideal Diode for USB Power

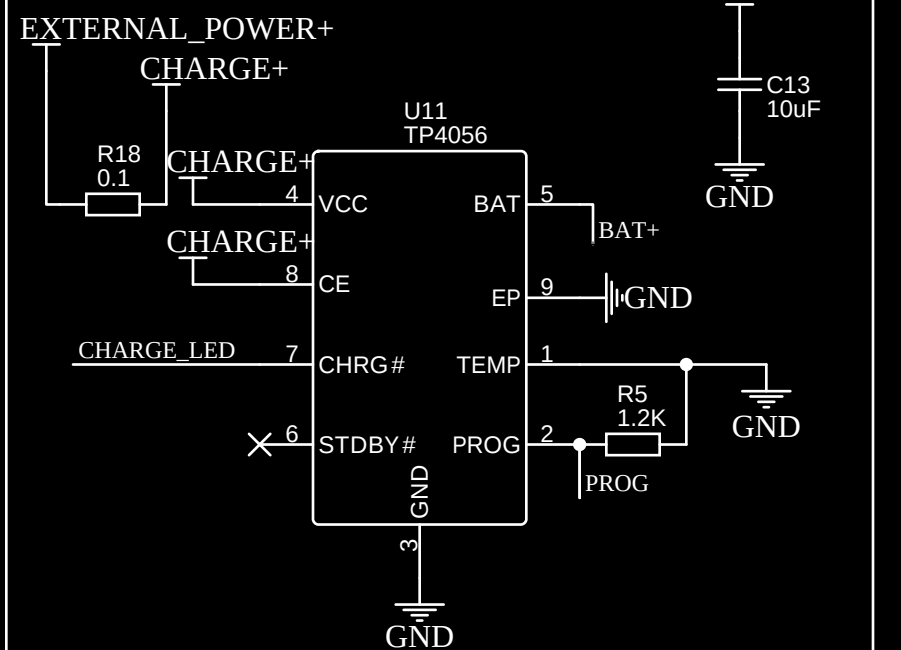
Prevent BAT+ from reaching USB when system is off
Prevent 5v from feeding back to system at all times



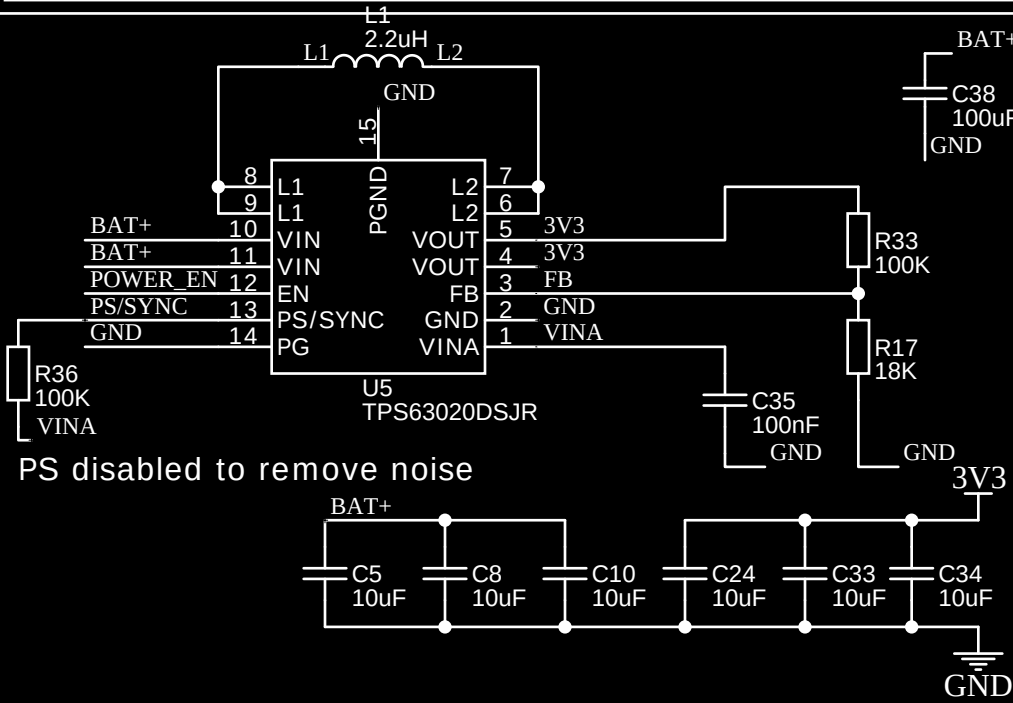
Battery Reverse Polarity Protection



Charging



PS disabled to remove noise



TITLE:

Power

REV: 1.0

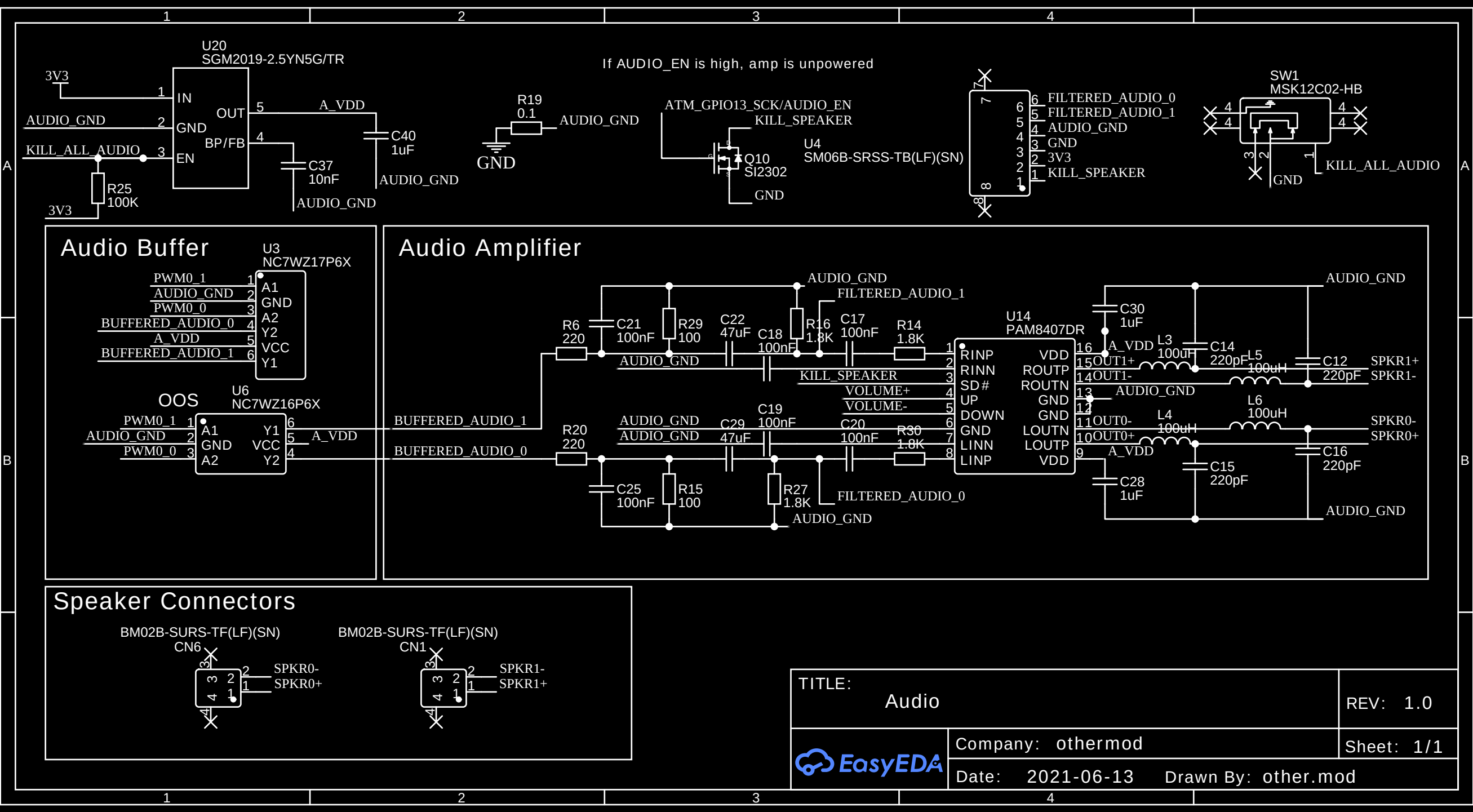


Company: othermod

Sheet: 1/1

Date: 2021-06-13

Drawn By: other.mod



TITLE: Audio		REV: 1.0
	Company: othermod	Sheet: 1/1
	Date: 2021-06-13	Drawn By: other.mod



FPC3
PSP 40pin Connector

Extra pullup on RESET
ATmega has internal, but this may be needed as well
RESET goes low during shutdown

disable LCD when flashing 328p

TITLE: LCD		REV: 1.0
	Company: Your Company	Sheet: 1/1
	Date: 2021-06-13 Drawn By: other.mod	