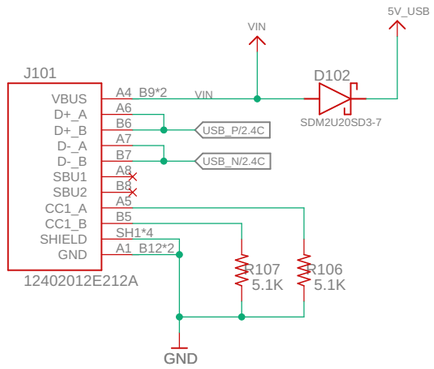
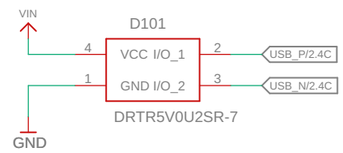
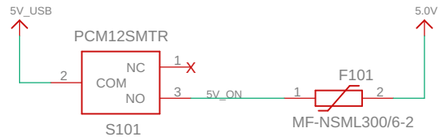


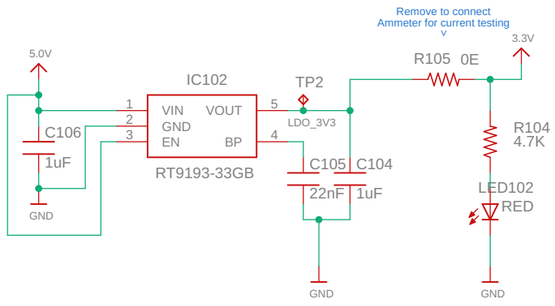
Primary Power Input to the system



ESD for USB

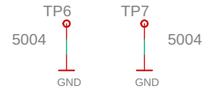


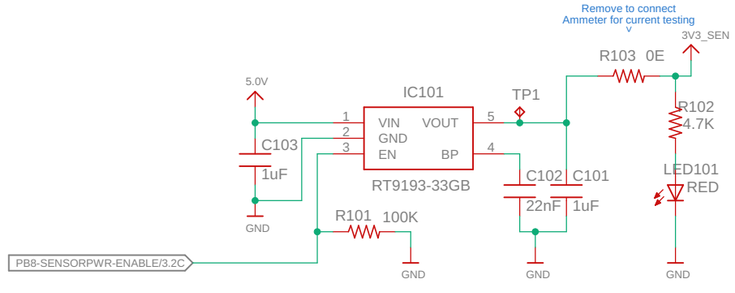
Equivalent Circuit
Slide the switch to power on



3.3V Regulation for MCU

Application:
> Always ON 3.3V power supply for the MCU and other ICs





3.3V Regulation for Sensors With EN control

Note:
> 4.0V is the raw power from Li-ion battery after the fuse and power switch.
> 3V3_SEN is the voltage for sensors
> To extend sensor life, we will turn on the sensors only at the time of sensor reading
> LDO max dropout: 0.22V @ 300mA
> LDO EN pulled LOW to keep it OFF. Drive MCU GPIO High (EN = HIGH) to enable the LDO

Application:
> EN Control based 3.3V power supply for external peripherals

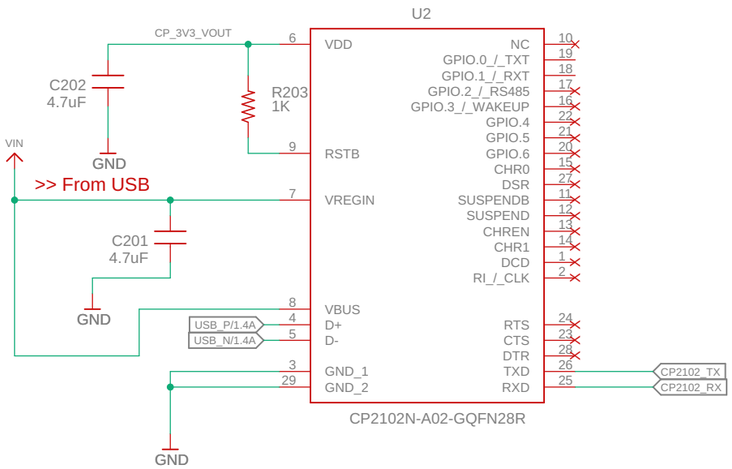
REV	DATE	APPROVED

Company: Wolkus Technology Solutions Pvt Ltd | Fasal

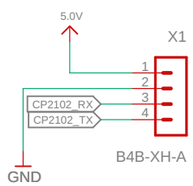
DRAWN: Abhay
CHECKED:
STATUS: Dev

TITLE: Power Supply Section – Control & Regulation
REV: 1B
FILE: Fasal-P506-Rev1B-SPI_Flash_Writer_Jig
DATE: 09-06-2024 10:41 PM
PAGE: 1/5

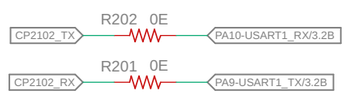
Note:
VREG from USB = USB Powered



USB-UART Converter



Bypass Header for MCU TX, RX



CP2102-MCU UART cross connection

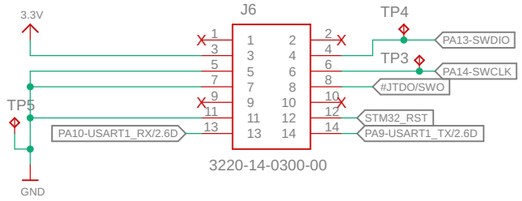
REV	DATE	APPROVED

Company: Wolkus Technology Solutions Pvt Ltd | Fasal

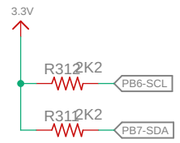
DRAWN: Abhay
CHECKED:
STATUS: Dev

TITLE: USB-TTL Section
REV: 1B
FILE: Fasal-P506-Rev1B-SPI_Flash_Writer_Jig
DATE: 09-06-2024 10:41 PM
PAGE: 2/5

Programming and Debugging Header

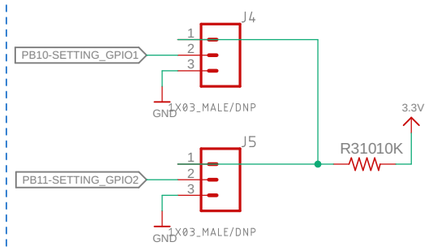


I2C Pull-Ups

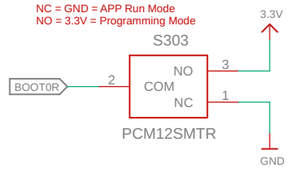


Place them close to the MCU
Our I2C sensor wiring is long.
Need strong pull-ups.

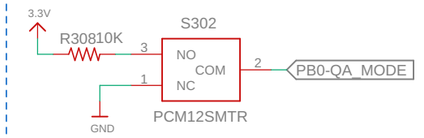
Setting GPIO



BOOT0 Switch

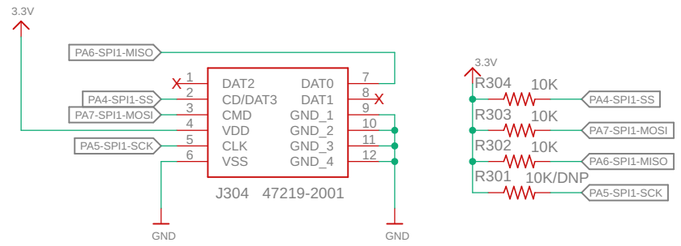


QA Mode Debug Switch

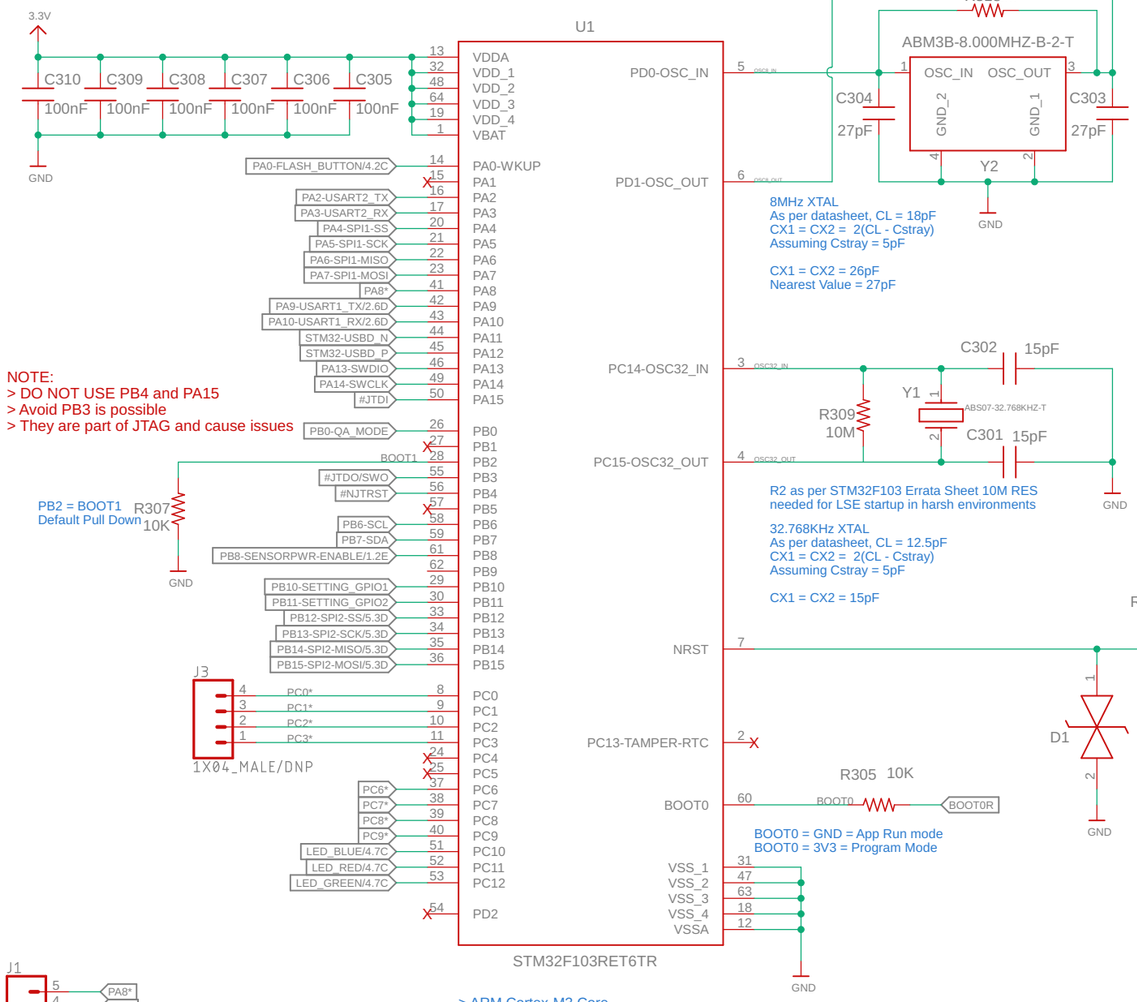


QA Mode
- Slide Switch to HIGH to enable Log Level-1

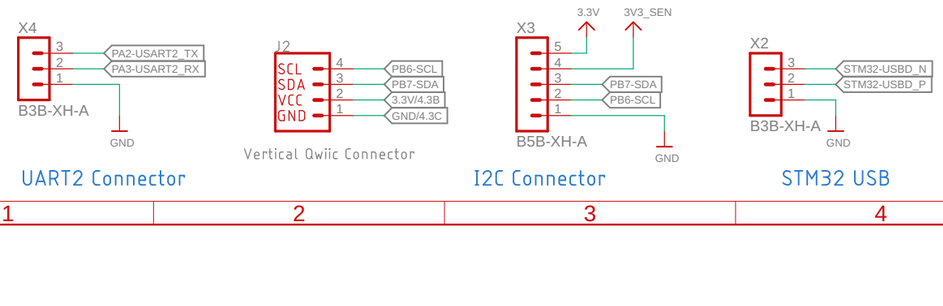
MicroSD Card Connector



Notes:
> uSD Support:: Upto 32 GB ONLY
> Format: FAT32
> Use CLASS 10 ONLY!



> ARM Cortex-M3 Core
> 512KB Flash
> 64KB RAM
> 64-pin LQFP

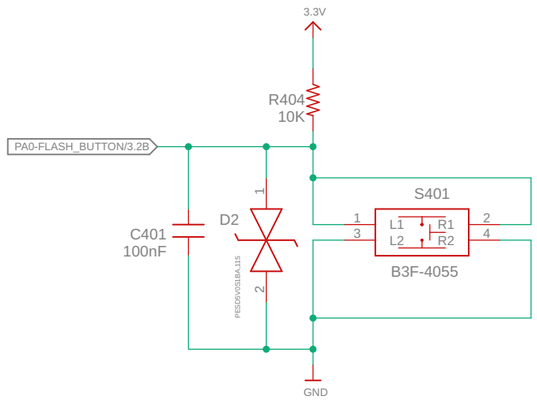


REV	DATE	APPROVED

Company: Wolkus Technology Solutions Pvt Ltd | Fasal

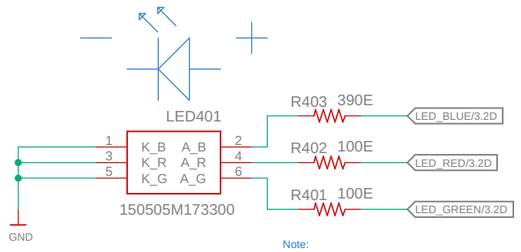
DRAWN: Abhay
CHECKED:
STATUS: Dev

TITLE: Microcontroller Section
REV: 1B
FILE: Fasal-P506-Rev1B-SPI_Flash_Writer_Jig
DATE: 09-06-2024 10:41 PM
PAGE: 3/5



User Button

Note:
> can be used to trigger FLASH writing activity



Note:
> MCU GPIO HIGH = LED ON
> MCU GPIO LOW = LED OFF

Resistor Calculations
****
R = (VDD - Vf) / If

Rred = (3.3-2.1) / 10mA = 120R
Green = (3.3-2.9) / 10mA = 40R
Blue = (3.3-2.9) / 10mA = 40R

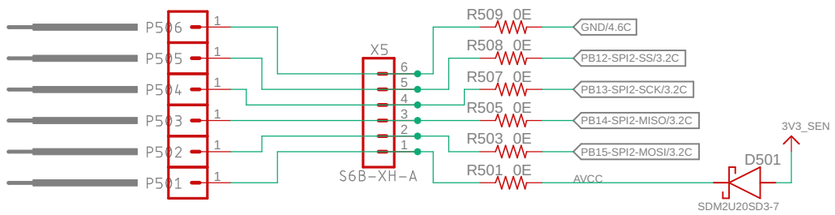
Doubling above (for safety)
Rred = 220R
Rgreen = 100R
Rblue = 100R

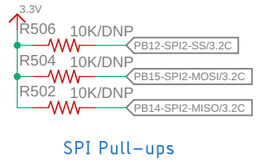
REV	DATE	APPROVED

Company: Wolkus Technology Solutions Pvt Ltd | Fasal

DRAWN: Abhay
CHECKED:
STATUS: Dev

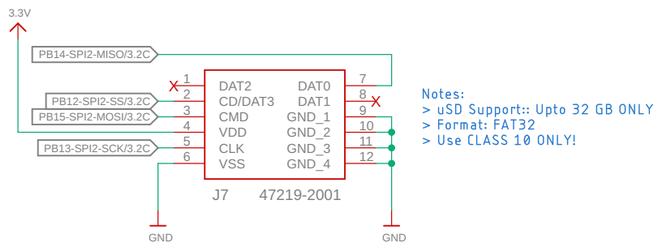
TITLE: User Button & LED
REV: 1B
FILE: Fasal-P506-Rev1B-SPI_Flash_Writer_Jig
DATE: 09-06-2024 10:41 PM
PAGE: 4/5





SPI2 Test Points

External SPI Slave on SPI2



Notes:
> uSD Support:: Upto 32 GB ONLY
> Format: FAT32
> Use CLASS 10 ONLY!

ONLY FOR TESTING.
Will not be used in Production.

Optional Micro SD Card Holder on SPI2

REV	DATE	APPROVED

Company: Wolkus Technology Solutions Pvt Ltd | Fasal

DRAWN Abhay
CHECKED
STATUS Dev

TITLE External SPI Slave
REV 1B
FILE: Fasal-P506-Rev1B-SPI_Flash_Writer_Jig
DATE 09-06-2024 10:41 PM
PAGE: 5/5