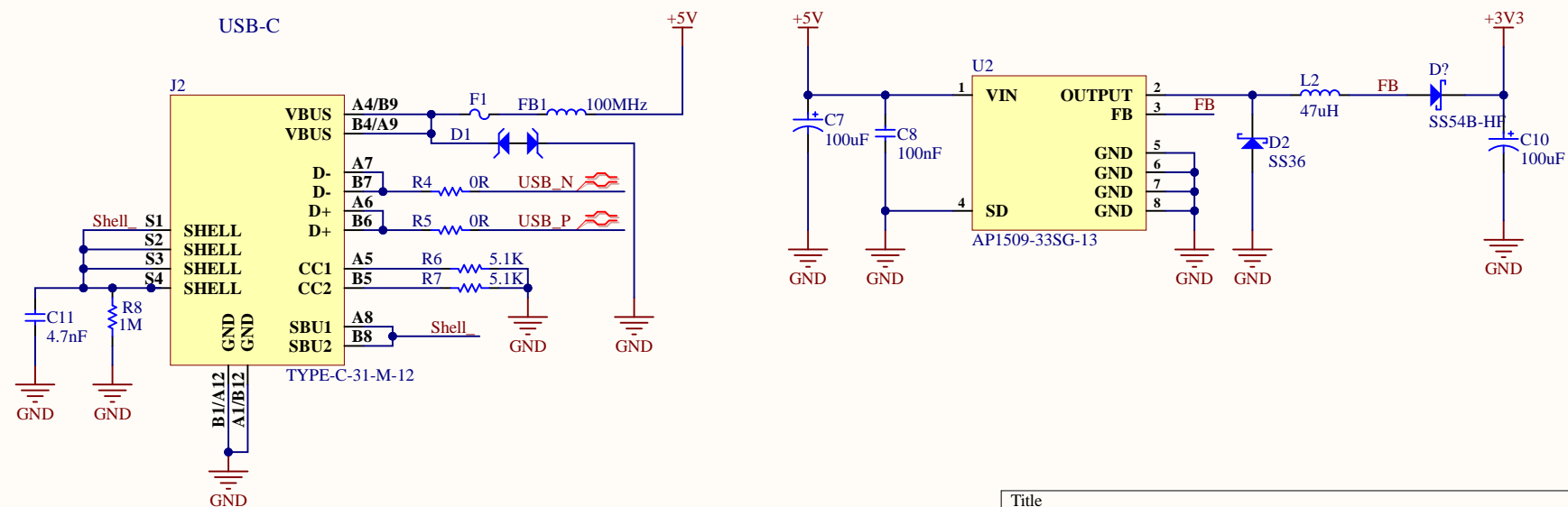
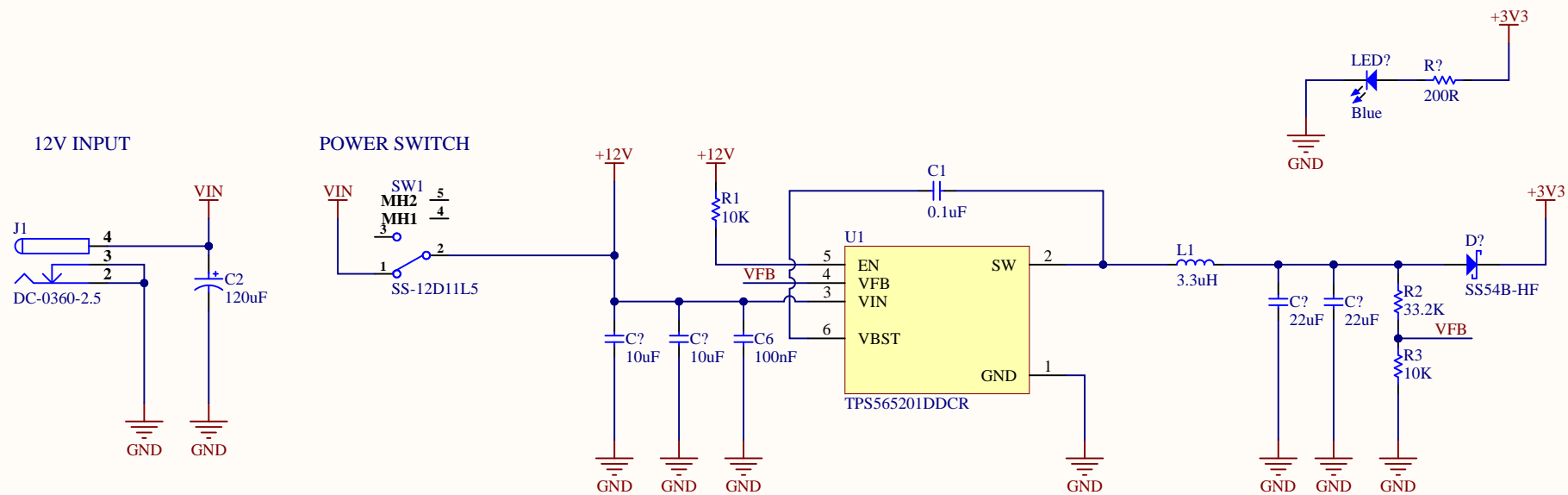


| Title | | |
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| Size | Number | Revision |
| A | | |
| Date: | 3/14/2024 | Sheet of |
| File: | D:\Freelance\...\Top_Sheet.SchDoc | Drawn By: |



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| File: | D:\Freelance\...\Power Sheet.SchDoc | Drawn By: |

A

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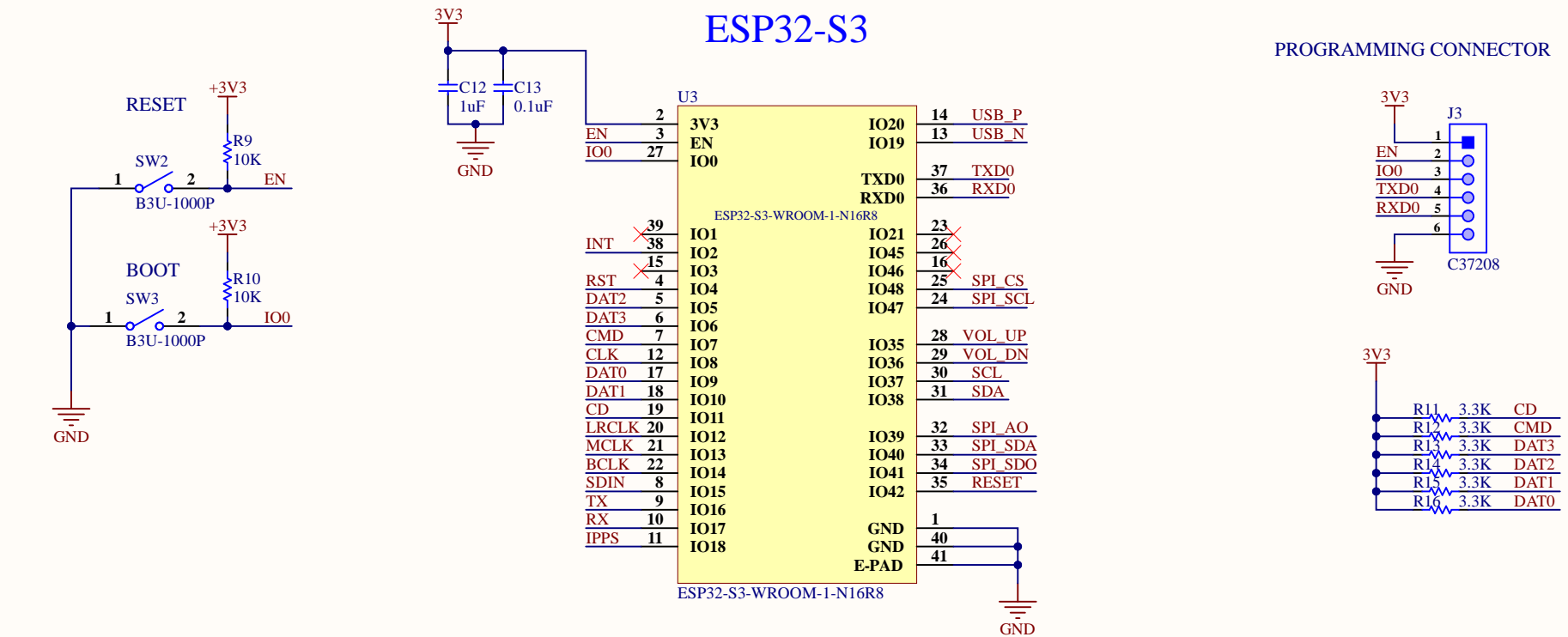
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C

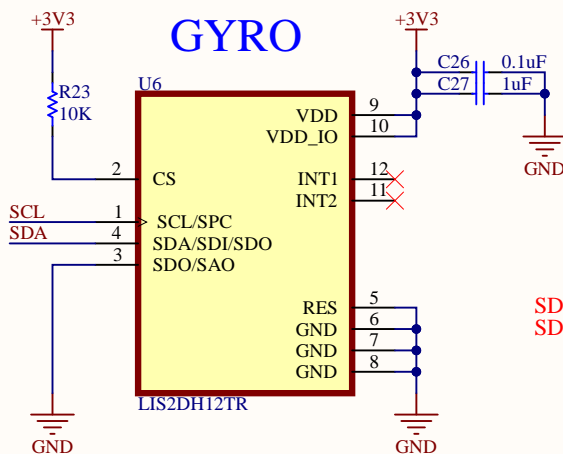
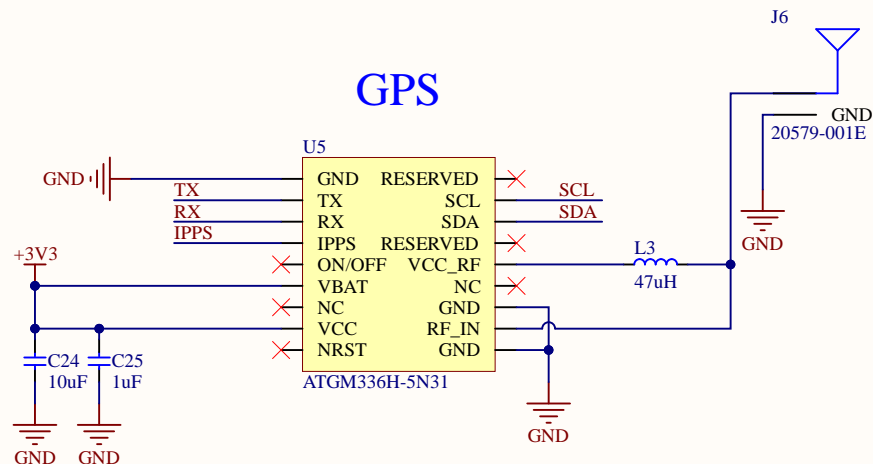
D

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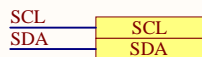
ESP32-S3



| Title | | |
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| Size | Number | Revision |
| A | | |
| Date: | 3/14/2024 | Sheet of |
| File: | D:\Freelance\...\Controller_Sheet.SchDoc | Drawn By: |



SD0/SA0 = 1, I2C address - (address 0011001b)
SD0/SA0 = 0, I2C address - (address 0011000b)



| Title | | |
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| Size | Number | Revision |
| A | | |
| Date: | 3/14/2024 | Sheet of |
| File: | D:\Freelance\...\Sensor_Sheet.SchDoc | Drawn By: |

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| Title | | |
| Size A | Number | Revision |
| Date: | 3/14/2024 | Sheet of |
| File: | D:\Freelance\...\LCD Sheet.SchDoc | Drawn By: |

| Comment | Description | Designator | Footprint | LibRef | Quantity |
|------------------------|--|-------------------------------------|-------------------------|------------------------|----------|
| 0.1uF | CAPCER0.1UF 100V X7R0603 | C1, C13, C16, C22, C26, C7 | Cap-0603 | 000603R907R06B104 | 8 |
| 120uF | CAPALUMPOLY 120UF 20% 25V 25MD | C2 | 20SMFP120M | 20SMFP120M | 1 |
| 100nF | CAPCER0.1UF 50V X7R0402 | C6 | cap-0402 | C100502R1H104K000 0F | 1 |
| 100uF | 100uF 50V ±20% SMD 06-3xL 7mm Aluminum Electrolytic Capacitors - SMD RCHS | C7, C10, C18, C21 | R/TH1H101M0607 | R/TH1H101M0607 | 4 |
| 100nF | CAPCER0.1UF 10V X6R0201 | C8 | CAP-0201 | 000201K90SR06B104 | 1 |
| 4.7nF | CAPCER47000PF50V COG/NPO0603 | C11 | Cap-0603 | 000603JRNPO6B47 2 | 1 |
| 1uF | CAPCER1UF 25V X5R0603 | C12, C14, C15, C17, C23, C25, C27 | Cap-0603 | 000603R90SR06B105 | 7 |
| 220nF | CAPCER0.22UF 25V X5R0402 | C19, C20 | Cap-0402 | 000402R90SR06B024 | 2 |
| 10uF | 10uF 35V X5R20% Pcs SMD0603 | C24, C27 | Cap-0603 | GRM188R6YA106MA7 3D | 3 |
| 22uF | CAPCER22UF 10V X5R0402 | C7 | Cap-0402 | GRM188R61A226ME1 5D | 2 |
| PESD5V0H1BSPYL | TVSDIODE5VMM 6.3V CDSN0603-2 | D1 | DSN0603-2 | PESD5V0H1BSPYL | 1 |
| SS36 | Schottky Barrier Diode SMD DO-214AB 3A/60V | D2 | SMA | SS36 | 1 |
| SS64B-HF | DIODESCHOTTK/5A 40V/SMB | D7 | SMB | SS64B-HF | 2 |
| 1206L300SLTHYR | 1TCRESET FUSE5V/3A 1206 | F1 | Fuse 1206 (3216 Metric) | 1206L300SLTHYR | 1 |
| 100MHz | FERRITEBEAD120 OHM1206 1LN | FB1 | IND-1206 | BLM1P01213N1L | 1 |
| DC-0360-2.5 | DC Power Receptacle 200°C Brass 20°C ~+70°C 2.5mm 6mm 2.5A 24V PlugIn AC/DC Power Connectors RCHS | J1 | DC-0360-2.5 | DC-0360-2.5 | 1 |
| TYPE-C-31-M-12 | 250mA 1.16 Female Type-C SMD USB Connectors RCHS | J2 | TYPE-C-31-M-12_ | TYPE-C-31-M-12 | 1 |
| C37208 | Straight 11 6.2-54mm Black Brass PlugIn, P=2.54mm Pin Headers RCHS | J3 | HDR1X6_ | C37208 | 1 |
| TF-CARDH1.8 | -40°C ~+70°C 1.8mm Gold Deck MicroSD card (TF card) Copper Alloy Shell bomb SMD SD Card Connectors RCHS | J4 | TF-CARDH1.8 | TF-CARDH1.8 | 1 |
| 2PITrough Hole Pads | Wire Connecting Pad | J5 | 2PITrough Hole Pads | 2PITrough Hole Pads | 1 |
| 20579-001E | The M.2 industry standard, support up to 12 GHz | J6 | IPEX, 20579-001E | IPEX-0001 | 1 |
| 3.3uH | 5.5A 3.3uH Molding Choke ±20% 5A SMD 0.5 2x5.4mm Power Inductors RCHS | L1 | PXL0530-3R3-M | PXL0530-3R3-M | 1 |
| 47uH | 2A 47uH ±20% 250mD SMD 0.6x7.2mm Inductors (SMD) RCHS | L2, L3 | CYA0650-47UH | CYA0650-47UH | 2 |
| Blue | blue 0603 Light Emitting Diodes (LED) RCHS | LED1, LED7 | LED-0603 | NCD0603B3 | 2 |
| 10K | RES SMD 10K OHM 0.1% 1/10W 0603 | R1, R3, R9, R10, R17, R18, R19, R23 | Res-0603 | RT0603BRD07104L | 8 |
| 33.2K | RES 33.2K OHM 1% 1/10W 0603 | R2 | Res-0603 | RD0603FR-0733K2L | 1 |
| 0R | RES 0 OHM JUMPER 1/16W 0402 | R4, R5 | Res-0402 | RD0402FR-070RL | 2 |
| 5.1K | RES 5.1K OHM 1% 1/20W 0201 | R6, R7 | Res-0201 | RD0201FR-075K1L | 2 |
| 1M | RES SMD 1M OHM 5% 1/16W 0402 | R8 | Res-0402 | AFV002_R-071ML | 1 |
| 3.3K | RES SMD 3.3K OHM 1% 1/10W 0603 | R11, R12, R13, R14, R15, R16 | Res-0603 | RD0603FR-073K2L | 6 |
| 100R | RES SMD 100 OHM 1% 1/4W 0603 | R20 | RES-0603 | RCYA0603100RPF04H-P | 1 |
| 2.4k | RES 2.4K OHM 1% 1/16W 0402 | R21, R22 | Res-0402 | RD0402FR-072K4L | 2 |
| 200R | RES 200 OHM 1% 1/16W 0402 | R7 | Res-0402 | RD0402FR-07200RL | 1 |
| SS-12D11L5 | Lying 3A SPDT 125V 6.3mm 13.5mm 125V 6.6mm 3A PCPin 10000 Rectangular columnar -40°C ~+85°C Black PlugIn Slide Switches RCHS | SW1 | SS-12D11L5 | SS-12D11L5 | 1 |
| B3U-1000P | SWITCH TACTILESPST NO 0.05A 12V | SW2, SW3 | B3U-1000P | B3U-1000P | 2 |
| RED | SWITCH TACTILESPST NO 0.05A 12V 4.5V to 17V, 5A, Synchronous Step-Down Voltage Regulator in SC723-6 SOT-23 THIN -40 to 125 | SW4, SW5 | PTS3645VW83-2 LFS_ | PTS3645VW83-2 LFS | 2 |
| TPS665201DDCR | | U1 | TPS665201DDCR | TPS665201DDCR | 1 |
| AP1509-33SG-13 | IC REG BUCK 3.3V 2A 8SOP | U2 | SOP-8L | AP1509-33SG-13 | 1 |
| ESP32-S3-WROOM-1-N16R8 | ESP32-S3 chip 2.4GHz SMD 18x25.5mm W/F 1 Modules RCHS | U3 | 41-SMD Module | ESP32-S3-WROOM-1-N16R8 | 1 |
| TAS5720MRSMR | 20Wx1 840V 0.04N-32(4x4) Audio Power OpAmps RCHS | U4 | TAS5720M | TAS5720MRSMR | 1 |
| ATGM336H+5N31 | SMD 0.7x10.1mm Satellite Positioning Modules RCHS | U5 | ATGM336H | ATGM336H+5N31 | 1 |
| USDC12TR | Accelerometer X, Y, Z Axis Acc 2g, 4g, 8g, 16g 0.5Hz ~ 672Hz 12 LGA (2x2) | U6 | PQFN60P200G00100 12N | USDC12TR | 1 |