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|-----------------|----------------------------|-----------|
| Title           |                            |           |
| Power Circuitry |                            |           |
| Size            | Number                     | Revision  |
| A4              |                            |           |
| Date:           | 11-21-2024                 | Sheet of  |
| File:           | C:\Users\...\1power.SchDoc | Drawn By: |

| Info | Line # | Name                  | Description   | Designator | Revision ID           | Revision State  | Revision Status | Quantity | Manufacturer 1              | Manufacturer Part Number 1 | Manufacturer Lifecycle 1       | Supplier 1 | Supplier Part Number 1      | Supplier Unit Price 1 | Supplier Subtotal 1 |
|------|--------|-----------------------|---|------------|-----------------------|-----------------|-----------------|----------|-----------------------------|----------------------------|--------------------------------|------------|-----------------------------|-----------------------|---------------------|
|      |        | USB-C                 | CONN RCPT TYPE C 6P SMD RA  | J1         |                       | Not managed     |                 | 1        | Global Connector Technology | USB4125-GF-A-0190          | Unknown                        | Digikey    | 2073-USB4125-GF-A-0190CT-ND | 0.81                  | 0.81                |
|      |        | TPS61200DRCT          | Boost Voltage Converter with 0.3 to 5.5 V Input and 1.8 to 5.5 V Output, -40 to 85 degC, 10-Pin SON (DRC), Green (RoHS& no Ss/Bz)                         | U3         | CMP-0347-00023-2      | Released        | Up to date      | 1        | Texas Instruments           | TPS61200DRCT               | Volume Production              | Digikey    | 296-21663-1-ND              | 2.74                  | 2.74                |
| JST  |        | S2B-PH-SM4-TB(LF)(SN) | Male Header, Pitch 2 mm, 1 x2 Position, Height 5.5 mm, -25 to 85 degC, RoHS, Tape and Reel  | P1         | CMP-1755-00001-1      | Released        | Up to date      | 1        | JST                         | S2BPHSM4TBLFSN             | Unknown                        |            |                             |                       |                     |
|      |        | 2.2K                  | RC0603FR-0722KL, Chip Resistor, 22 KOhm, +/- 1%, 0.1 W, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel  | R3         |                       | Not managed     |                 | 1        | Yageo                       | RC0603FR-0722KL            | Volume Production              | DigiKey    | 311-22.0K-HRCT-ND           | 0.11                  | 0.11                |
|      |        | RC0603FR-0710KL       | RES10KOHM 1% 1/10W 0603   | R6         | CMP-2100-03664-2      | Released        | Up to date      | 1        | Yageo                       | RC0603FR-0710KL            | Volume Production              | Digikey    | 311-10.0K-HRDKR-ND          | 0.1                   | 0.1                 |
|      |        | 1M                    | 1MOhm, RC0603JR-071ML, RESSMD 1MOHM 5% 1/10W 0603   | R2, R4     |                       | Not managed     |                 | 2        | Yageo                       | RC0603FR-071ML             | Volume Production              | Digikey    | 311-1.00M-HRCT-ND           | 0.012                 | 0.12                |
|      |        | RC0603FR-071ML        | Chip Resistor, 1 MOhm, +/- 1%, 100 mW, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel   | R9         | CMP-1659-00056-1      | Released        | Up to date      | 1        | Yageo                       | RC0603FR-071ML             | Volume Production              | Digikey    | 311-1.00M-HRCT-ND           | 0.1                   | 0.1                 |
|      |        | LPS22H-HTR            | CONSUMER MEMS   | U7         | CMP-12182-000001-1    | New From Design | Up to date      | 1        | STMicroelectronics          | LPS22HHTR                  | Volume Production              | Digikey    | 497-18182-1-ND              | 3.07                  | 3.07                |
|      |        | GRM188R72A104KA35D    | Chip Multilayer Ceramic Capacitors for General Purpose, 0603, 0.10uF, X7R, 15%, 10%, 100V   | C1         | CMP-1035-02595-8      | New From Design | Up to date      | 1        | Murata                      | GRM188R72A104KA35D         | Volume Production              | Digikey    | 490-3285-1-ND               | 0.15                  | 0.15                |
|      |        | GRM188R61C475KAAJ D   | CAP CER 4.7UF 16V X5R 0603  | C3         | CMP-06035-062335-2    | New From Design | Up to date      | 1        | Murata                      | GRM188R61C475KAAJ D        | Not Recommended for New Design |            |                             |                       |                     |
|      |        | GRM188R60J106ME47 D   | Chip Multilayer Ceramic Capacitors for General Purpose, 0603, 10uF, X5R, 15%, 20%, 6.3V   | C2         | CMP-2006-02792-2      | New From Design | Up to date      | 1        | Murata                      | GRM188R60J106ME47D         | Volume Production              | Digikey    | 490-3896-6-ND               | 0.1                   | 0.1                 |
|      |        | ERJ3BF3300V           | Chip Resistor, 330 Ohm, +/- 1%, 0.1 W, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel   | R1         | CMP-2000-00435-2      | Released        | Up to date      | 1        | Panasonic                   | ERJ3BF3300V                | Volume Production              | Digikey    | P330HDKR-ND                 | 0.1                   | 0.1                 |
|      |        | ERJ3BF1781V           |   | R8         | CMP-2000-00290-1      | Released        | Up to date      | 1        | Panasonic                   | ERJ3BF1781V                | Volume Production              | Digikey    | P1.78KHCT-ND                | 0.1                   | 0.1                 |
|      |        | Protection IC FET     | Protection IC FET, MOSFET N-CH 25V 60A 8-SON, CSD16406Q3  | Q1, Q2     |                       | Not managed     |                 | 2        | Texas Instruments           | CSD16406Q3                 | Volume Production              | Mouser     | 595-CSD16406Q3              | 1.27                  | 2.54                |
|      |        | CRCW0603180KFKEA      | RES Thick Film, 180kΩ, 1%, 0.1W, 100ppm/°C, 0603  | R10        | CMP-2000-02950-2      | New From Design | Up to date      | 1        | Vishay                      | CRCW0603180KFKEA           | Volume Production              | Digikey    | 541-180KHCT-ND              | 0.1                   | 0.1                 |
|      |        | CRCW06031K50JNEA      |   | R5, R7     | CMP-2000-02997-1      | Released        | Up to date      | 2        | Vishay Dale                 | CRCW06031K50JNEA           | Volume Production              | Digikey    | 541-1.5KGCT-ND              | 0.1                   | 0.2                 |
|      |        | Protection IC         | Power Supply Support Circuit, Fixed, 1 Channel, PDS06   | U1         |                       | Not managed     |                 | 1        | Texas Instruments           | BQ29701DSER                | Volume Production              | Digikey    | 296-39944-1-ND              | 0.45                  | 0.45                |
|      |        | BQ24072RGTT           | USB-Friendly Li-Ion Battery Charger and Power-Path Management IC, Vout 200 mV above Vbat, 4.3 V, -40 to 85 degC, 16-pin QFN (RGT), Green (RoHS& no Ss/Bz) | U2         | CMP-0321-00226-2      | Released        | Up to date      | 1        | Texas Instruments           | BQ24072RGTT                | Volume Production              | Digikey    | 296-23813-1-ND              | 2.84                  | 2.84                |
|      |        | ASMD-CWG7-NX7D2       | ASMD-CWG7-NX7D2 ASMD-CWG7 Rectangle with Flat Top White Cool Surface Mount LED Indication Discrete 2.8V 20mA 2800mcd 120°                                 | D1, D2     | CMP-02129-107448438-1 | New From Design | Up to date      | 2        | Broadcom                    | ASMD-CWG7-NX7D2            | Volume Production              | Digikey    | 516-ASMD-CWG7-NX7D2CT-ND    | 0.26                  | 0.52                |
|      |        | 744031002             |   | L1         | CMP-0227-00365-3      | Released        | Up to date      | 1        | Würth Electronics           | 744031002                  | Volume Production              | Digikey    | 732-1006-1-ND               | 1.52                  | 1.52                |
|      |        | rp2040                |   |            |                       | Not managed     |                 | 1        |                             |                            |                                |            |                             |                       |                     |