



| Designator  | Comment                     | Description   | Manufacturer 1                        | Manufacturer Part     | Quantity | Supplier Part Number 1    | Supplier Unit Price | Supplier Currency | Supplier Order Oty | Supplier Order Oty | ComponentLink1U  |
|---|-----------------------------|---|---------------------------------------|-----------------------|----------|---------------------------|---------------------|-------------------|--------------------|--------------------|--|
|   | 10u                         | Cap Ceramic 10uF<br>10Vdc X5R 10%   | I I I I I I I I I I I I I I I I I I I | Number 1              | duants   | 13-CC0805KPXSR6BB106CT-ND | 1                   | 1                 | 1                  | 2                  | RL<br>http://datasheet.o<br>ctopart.com/CC08<br>05KPX5R6BB106-   |
| C3, C4<br>C7, C8, C9  | Cap                         | SMD 0805 85°C<br>Paper T/R<br>Capacitor   |                                       |                       |          | 13-CCUBUSKPASKOBBTUGCT-ND |                     |                   |                    |                    | Yageo-datasheet-<br>86397281.pdf   |
| D71   | MBR120VLSFT3G               | Schottky Diode<br>Breadboard with 2   |                                       |                       | i        |                           |                     |                   |                    |                    |  |
| J2  | BREADBOARD                  | columns of 30<br>rows + VCC and<br>GND rails  |                                       |                       | 1        |                           |                     |                   |                    |                    |  |
| J5  | JACDAC_CONNEC<br>TOR        |   |                                       |                       | 1        |                           |                     |                   |                    |                    |  |
| R9, R10   | Res Semi                    | Semiconductor<br>Resistor   |                                       |                       | 2        |                           |                     |                   |                    |                    |  |
| TP1, TP2  | TEST                        | Test point<br>Surface Mount   |                                       |                       |          |                           |                     |                   |                    |                    |  |
| C1, C2  | 1u                          | Ceramic<br>Multilayer<br>Capacitor 1uF -<br>20% to 80% Y5V<br>25V 0805 Paper<br>T/R                             | Yageo                                 | CC0805ZRY5V8BB<br>105 | 2        | 311-1358-1-ND             | 0.14                | USD               | 2                  |                    | https://datasheet.<br>ciiva.com/144/mlc<br>corderingcode-<br>144703.pdf?src-<br>supplier=Digi-Key                          |
| 05  | 1n                          | Surface Mount<br>Ceramic<br>Multilayer<br>Capacitor 0.001uF<br>10% X7R 50V 0805<br>Paper T/R                    | Yageo                                 | CC0805KRX7R98B<br>102 | 1        | 311-1127-1-ND             | 0.1                 | USD               | 1                  |                    | https://datasheet.<br>ciiva.com/11786/<br>0900766b80d84f1<br>d-<br>11786074.pdf?src-<br>supplier=RSCompo<br>nents          |
| C6  | 33p                         | Cap Ceramic 33pF<br>50V C0G 5% SMD<br>0805 125C Paper<br>T/R  | Yageo                                 | CC0805JRNPO9BN<br>330 | 1        | 311-1105-1-ND             | 0.11                | USD               | 1                  |                    | https://datasheet.<br>ciiva.com/144/mlc<br>corderingcode-<br>144778.pdf?src-<br>supplier=Digi-Key                          |
| D1, D69   | 1727-2905-1-ND              | Rectifier Diode<br>Schottky 0.2A 5ns<br>Automotive 3-Pin<br>SC-70 T/R   | Philips                               | BAT54SW,115           | 2        | 1727-2905-1-ND            | 0.23                | USD               | 2                  |                    | http://www.farnei<br>I.com/datasheets/<br>1679676.pdf?src-<br>supplier=Farnell   |
| D2  | CUS520,H3F                  | Diode Small Signal<br>Schottky Si 0.2A 2-<br>Pin USC T/R  | Toshiba                               | CUS520,H3F            | 1        | CUSS20H3FCT-ND            | 0.22                | USD               | 1                  |                    | https://toshiba.se<br>micon-<br>storage.com/info/<br>docget.jsp?did=70<br>41&prodName=C<br>US520&src-<br>supplier=Digi-Key |
| 03, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22, D23, D24, D25, D26, D27, D28, D29, D30, D31, D32, D33, D34, D35, D36, D36, D36, D36, D36, D36, D36, D36 | 3587                        | DotStar Micro<br>LEDs<br>(APA102-2020)-<br>Smart SMD RGB<br>LED - 100 pack                                      | Adafruit Industries                   | 3587                  | 65       | 1528-2392-ND              | 29.95               | USD               | 65                 |                    | https://media.digi<br>key.com/pdf/Data<br>%20Sheets/Adafru<br>it%20PDFs/3587_<br>Web.pdf?src-<br>supplier=Digi-Key         |
| D68   | Red                         | SMD LED red 2.4 V<br>0805,<br>150080RS75000,<br>Würth Elektronik  | Wurth Electronics                     | 150080RS75000         | 1        | 732-4984-6-ND             | 0.18                | USD               | 1                  |                    | https://datasheet.<br>ciiva.com/22656/<br>150080rs75000-<br>22656961.pdf?src-<br>supplier=Element1<br>4                    |
| D70   | D5V0P1B2LP-7B               | TVS DIODE 5.5V<br>13V DFN1006-2   | Diodes                                | D5V0P1B2LP-7B         | 1        | D5V0P1B2LP-7BDICT-ND      | 0.28                | USD               | 1                  |                    | http://www.mous<br>er.com/ds/2/115/<br>D5V0P1B2LP-<br>368667.pdf?src-  |
| FB1   | 300mR, 1kR<br>@100MHz       | Ferrite Beads<br>Multi-Layer Chip<br>Bead 1KOhm 25%<br>100MHz 600mA<br>0603 T/R                                 | Wurth Electronics                     | 742792662             | 1        | 732-4670-1-ND             | 0.17                | USD               | 1                  |                    | supplier=Mouser<br>https://datasheet.<br>ciiva.com/29364/<br>742792662-<br>29364469.pdf?src-<br>supplier=Digi-Key          |
| n   | micro-bit edge<br>connector | 3887 - SMT Right-<br>Angle Connector<br>for micro:bit   | Adafruit Industries                   | 3887                  | 1        | 1528-2644-ND              | 2.95                | USD               | 1                  |                    | https://cdn-<br>shop.adafruit.com<br>/product-<br>files/3887/3887_d<br>atasheet.pdf  |
| 13  | 0475901001                  | USB - micro AB<br>Receptacle<br>Connector 5<br>Position Surface<br>Mount, Right<br>Angle, Horizontal            | Molex                                 | 0475901001            | 1        | WM14336CT-ND              | 0.97                | USD               | 1                  |                    | https://datasheet.<br>ciiva.com/29660/<br>475901001-sd-<br>29660111.pdf?src-<br>supplier=Digi-Key                          |
| 14  | SSW-103-01-F-D              | SAMTEC - SSW-<br>103-01-F-D -<br>CONNECTOR,<br>RECEPTACLE, 6<br>CONTACTS, 2<br>ROWS, 2.54 MM                    | Samtec                                | SSW-103-01-F-D        | 1        | SAM10016-ND               | 1.42                | USD               | 1                  |                    | http://www.fame<br>l.com/datasheets/<br>2550265.pdf?src-<br>supplier=Famell  |
| R1, R3, R5, R6  | 10K                         | Res Thick Film<br>0805 10K Ohm 5%<br>1/8W ±100ppm/°C<br>Molded SMD<br>Paper T/R                                 | Yageo                                 | RC0805JR-0710KL       | 4        | 311-10KARCT-ND            | 0.1                 | USD               | 4                  |                    | https://datasheet.<br>ciiva.com/7941/4<br>44164-<br>7941870.pdf?src-<br>supplier=Element1<br>4                             |
| R2, R4  | 200                         | RES SMD 200<br>OHM 0.5% 1/8W<br>0805  | Yageo                                 | RT0805DRE07200<br>RL  | 2        | 311-2816-1-ND             | 0.12                | USD               | 2                  |                    | https://datasheet.<br>ciiva.com/2569/pj<br>u-rt-1-to-0-05-<br>rohs-I-5-<br>2569311.pdf?src-<br>supplier=Digi-Key           |
| R7  | 160                         | RES SMD 160<br>OHM 5% 1/8W<br>0805  | Yageo                                 | RC0805JR-<br>07160RL  | 1        | 311-160ARCT-ND            | 0.1                 | USD               | 1                  |                    | https://datasheet.<br>ciiva.com/2456/pj<br>u-r-int-thick-7-<br>2456164.pdf?src-<br>supplier=Digi-Key                       |
| RS  | 220                         | Res General<br>Purpose Thick Film<br>0805 220 Ohm 5%<br>1/8W ±100ppm/°C<br>Molded SMD<br>Paper T/R              | Yageo                                 | RC0805JR-<br>07220RL  | 1        | 311-220ARCT-ND            | 0.1                 | USD               | 1                  |                    | https://datasheet.<br>ciiva.com/7941/4<br>42941-<br>7941917.pdf?src-<br>supplier=Element1<br>4                             |
| U1  | NCP380LSN10AAT<br>1G        | REEL / OVER<br>CURRENT<br>PROTECTION  | ON<br>Semiconductor                   | NCP380LSN10AAT<br>1G  | 1        | NCP380LSN10AAT1GOSCT-ND   | 0.76                | USD               | 1                  |                    | https://datasheet.<br>ciiva.com/1939/no<br>p380-d-<br>1939778.pdf?src-<br>supplier=Digi-Key                                |
| U2  | LD1085D2T33R                | Fixed LDO Voltage<br>Regulator, 6.3V to<br>30V, 1.3V<br>Dropout, 3.3Vout,<br>3Aout, TO-263-3                    | STMicroelectronic<br>s                | LD1085D2T33R          | 1        | 497-1222-6-ND             | 1.72                | USD               | 1                  |                    | https://datasheet.<br>ciiva.com/16375/c<br>d00001883-<br>16375381.pdf  |
| U3, U4  | BSS138W                     | MOSFET 50V N-CH<br>Logic Level  | ON<br>Semiconductor /<br>Fairchild    | BSS138W               | 2        | BSS138WCT-ND              | 0.39                | USD               | 2                  |                    | https://datasheet.<br>ciiva.com/17170/<br>bss138w-<br>17170739.pdf   |
| US  | TPS2551QDBVRQ1              | Automotive 2.7V<br>to 5.5V, adjustable<br>current-Limit<br>power distribution<br>switch 6-SOT-23 -<br>40 to 125 | Texas Instruments                     | TPS2551QDBVRQ1        | 1        | 296-23692-1-ND            | 3.08                | USD               | 1                  |                    | https://datasheet.<br>ciiva.com/3233/tp<br>s2551-q1-<br>3233588.pdf?src-<br>supplier=Avnet                                 |
|   |                             | 40 ID 123   |                                       |                       |          | <u> </u>                  |                     |                   | L                  |                    |  |