



| Qty | Designator                             | Quantity | Value     | PartNumber         | Manufacturer                | Description                                                                | PackageReference             | Revision State | Manufacturer 1             | Manufacturer Part Number 1 | Manufacturer Lifecycle 1 | Supplier 1 | Supplier Part Number 1 | Supplier Unit Price 1 | Supplier Subtotal 1 | Supplier 2 | Supplier Part Number 2 | Supplier Unit Price 2 | Supplier Subtotal 2 |
|-----|----------------------------------------|----------|-----------|--------------------|-----------------------------|----------------------------------------------------------------------------|------------------------------|----------------|----------------------------|----------------------------|--------------------------|------------|------------------------|-----------------------|---------------------|------------|------------------------|-----------------------|---------------------|
|     | C1                                     | 1        | 220uF     | XXXX##             | Any                         | Printed Circuit Board                                                      |                              | Production     |                            |                            |                          |            |                        |                       |                     |            |                        |                       |                     |
|     | C2, C3, C4                             | 1        | 1.22uF    | 86080675015        | Würth Elektronik            | CAP. AL, 220 uF, 50 V, +/- 20%, TH                                         | D1Dx16mm                     | Validation     | Würth Electronics          | 86080675015                | Volume Production        | Digi-Key   | 732-9057-1-ND          | 0.55                  | 0.55                | Digi-Key   | 732-9057-3-ND          | 0.32                  | 1.60                |
|     | C7, C8, C9                             | 3        | 100pF     | GRM32ER71H475KA8BL | MuRata                      | CAP. CERAM, 4.7 uF, 50 V, +/- 10%, X7R, 1210                               | 1210                         | Validation     | Murata                     | GRM32ER71H475KA8BL         | Volume Production        | Digi-Key   | 490-1864-6-ND          | 0.58                  | 1.74                | Digi-Key   | 490-1864-1-ND          | 0.58                  | 1.74                |
|     | C12, C13                               | 3        | 100pF     | GRM32ER71H106KA12L | MuRata                      | CAP. CERAM, 10 uF, 50 V, +/- 10%, X7R, 1210                                | 1210                         | Production     | Murata                     | GRM32ER71H106KA12L         | Volume Production        | Digi-Key   | GRM32ER71H106KA12L-ND  | 0                     | 0                   | Digi-Key   | 490-6544-1-ND          | 0                     | 0                   |
|     | C14                                    | 2        | 4.7uF     | 885012206068       | Würth Elektronik            | CAP. CERAM, 4.7 uF, 25 V, +/- 10%, X7R, 1206, 190                          | 1206, 190                    | Validation     | Würth Elektronik           | 885012206068               | Unknown                  | Mouser     | 710-885012206068       |                       |                     |            |                        |                       |                     |
|     | C16, C17, C19, C21, C30, C31, C33, C34 | 1        | 1.22uF    | EKM6160EL121MF1D1  | Chemi-Con                   | CAP. AL, 220 uF, 16 V, +/- 20%, TH                                         | D6, 3x11mm                   | Validation     | Würth Elektronik           | 06035ASR6CAT2A             | Unknown                  | Digi-Key   | 565-1293-ND            |                       |                     |            |                        |                       |                     |
|     | C19, C23, C25, C27, C32                | 1        | 100pF     | 885012060657       | Würth Elektronik            | CAP. CERAM, 100 pF, 50 V, +/- 5%, COG/NP0, 0603                            | 0603                         | Validation     | Würth Elektronik           | 06035ASR6CAT2A             | Unknown                  |            |                        |                       |                     |            |                        |                       |                     |
|     | C20                                    | 1        | 1uF       | 885012206065       | Würth Elektronik            | CAP. CERAM, 0.1 uF, 50 V, +/- 10%, X7R, 0603                               | 0603                         | Validation     | Würth Elektronik           | 885012206065               | Unknown                  |            |                        |                       |                     |            |                        |                       |                     |
|     | C22                                    | 1        | 1uF       | 885012206076       | Würth Elektronik            | CAP. CERAM, 1 uF, 25 V, +/- 10%, X7R, 0603                                 | 0603                         | Validation     | Würth Elektronik           | 885012206076               | Unknown                  | Digi-Key   | 732-7994-1-ND          |                       |                     | Newark     | 75V6031                |                       |                     |
|     | C24                                    | 1        | 100pF     | 885012060657       | Würth Elektronik            | CAP. CERAM, 100 pF, 50 V, +/- 5%, COG/NP0, 0603                            | 0603                         | Validation     | Würth Elektronik           | 06035ASR6CAT2A             | Unknown                  |            |                        |                       |                     |            |                        |                       |                     |
|     | C26                                    | 1        | 13300pF   | 885012206086       | Würth Elektronik            | CAP. CERAM, 3300 pF, 50 V +/- 10%, X7R, 0603                               | 0603                         | Production     |                            |                            |                          | Digi-Key   | 732-8004-1-ND          |                       |                     | Newark     | 15AC9377               |                       |                     |
|     | C29                                    | 1        | 0.022uF   | 885012206091       | Würth Elektronik            | CAP. CERAM, 0.022 uF, 50 V, +/- 10%, X7R, 0603                             | 0603                         | Validation     | Würth Elektronik           | 885012206091               | Unknown                  |            |                        |                       |                     |            |                        |                       |                     |
|     | D1                                     | 1        | 120V      | B220A-13-F         | Diodes Inc.                 | Diode, Schottky, 20 V, 2 A, SMA                                            | SMA                          | Validation     | Diodes                     | B220A-13-F                 | Volume Production        | Digi-Key   | B220A-FDIDXR-ND        | 0.49                  | 0.49                | Digi-Key   | B220A-FDICT-ND         | 0.49                  | 0.49                |
|     | D2                                     | 1        | 160V      | B260A-13-F         | Diodes Inc.                 | Diode, Schottky, 60 V, 2 A, SMA                                            | SMA                          | Validation     | Diodes                     | B260A-13-F                 | Volume Production        | Digi-Key   | B260A-FDIDXR-ND        | 0.46                  | 0.46                | Digi-Key   | B260A-FDICT-ND         | 0.46                  | 0.46                |
|     | D3, D4, D5                             | 3        | 100V      | BA316.115          | Nexperia                    | Diode, Ultrafast, 100 V, 0.25 A, SOD-323                                   | SOD-323                      | Validation     | Nexperia                   | BA316.115                  | Unknown                  | Digi-Key   | 1727-4309-1-ND         | 0.11                  | 0.33                | Digi-Key   | 1727-4309-6-ND         | 0.11                  | 0.33                |
|     | FID1, FID2, FID3                       | 3        | N/A       | N/A                | N/A                         | Fiducial mark. There is nothing to buy or mount.                           | N/A                          | Production     |                            |                            |                          |            |                        |                       |                     |            |                        |                       |                     |
|     | H1, H2, H3, H4                         | 4        | N/A       | NY PMS 440 0025 PH | B&F Fastener Supply         | Machine Screw, Round, #4-40 x 1/4, Nylon, Phillips panhead                 |                              | Production     | B&F Fastener               | NYPM54400025PH             | Volume Production        | Digi-Key   | H542-ND                | 0                     | 0                   |            |                        |                       |                     |
|     | J3, J4, J7, J8                         | 4        | 575-8     | 575-8              | Keystone                    | Standard Banana Jack, Uninsulated, 8.9mm                                   | Keystone575-8                | Validation     | Keystone Electronics       | 575-8                      | Volume Production        | Digi-Key   | 36-575-8-ND            | 0.88                  | 3.52                | Mouser     | 534-575-8              | 0.76                  | 3.12                |
|     | J9                                     | 1        |           | PECO1DAAN          | Sullins Connector Solutions | Header, 2.54mm, 1x2, Tin, Black, TH                                        | Header, 2.54mm, 2x1, TH      | Validation     |                            |                            |                          | Digi-Key   | S2012E-01-ND           |                       |                     |            |                        |                       |                     |
|     | L1                                     | 1        | 1.47uH    | 7443551470         | Würth Elektronik            | Inductor, Shielded Drum Core, WE-Ferm, 4.7 uH, 13 A, 0.007 ohm, SMD        | WE-HC1A                      | Validation     |                            |                            |                          | Digi-Key   | 732-1128-1-ND          |                       |                     | Mouser     | 710-7443551470         |                       |                     |
|     | L8L1                                   | 1        |           | THT-14-423-10      | Brady                       | Thermal Transfer Printable Labels, 0.650" W x 0.200" H, 10000 per roll     | PCB Label 0.650 x 0.200 inch | Production     | Brady                      | THT-14-423-10              | Volume Production        | Arrow      | THT-14-423-10          | 58.02                 | 58.02               | Digi-Key   | 2267-THT-14-423-10-ND  | 78.99                 | 78.99               |
|     | Q11, Q21, Q31, Q41                     | 1        | 60V       | CSD18B37NWC3       | Texas Instruments           | MOSFET, N-CH, 60, 50 A, KC30003B (TO-220-3)                                | KC30003B                     | Validation     |                            |                            |                          | Digi-Key   | 296-35456-5-ND         |                       |                     | Newark     | 04X4640                |                       |                     |
|     | R2, R28, R211                          | 1        | 0.01      | RC1206JR-070RL     | Yageo America               | RES, 0.0%, 0.25 W, 1206                                                    | 1206                         | Validation     | Yageo America              | RC1206JR-070RL             | Unknown                  | Digi-Key   | 311-0.0RECT-ND         | 0.15                  | 0.15                | Mouser     | 603-RC1206JR-070RL     |                       |                     |
|     | R3, R8                                 | 2        | 10.0      | RC1206FR-0710RL    | Yageo America               | RES, 10.0 ohm, 1%, 0.25W, 1206                                             | 1206                         | Not managed    | Yageo                      | RC1206FR-0710RL            | Volume Production        | Digi-Key   | 311-10.0FRCT-ND        | 0.15                  | 0.3                 |            |                        |                       |                     |
|     | R5, R6, R10, R11, R14, R27, R34        | 7        | 0         | RC0603JR-070RL     | Yageo                       | RES, 0.0%, 0.1 W, 0603                                                     | 0603                         | Production     | Yageo                      | RC0603JR-070RL             | Volume Production        | Digi-Key   | 311-0.0GRDIX-ND        | 0.017                 | 0.17                | Digi-Key   | 311-0.0GRDIX-ND        | 0.017                 | 0.17                |
|     | R13                                    | 1        | 1.249k    | RC0603FR-07249KL   | Yageo                       | RES, 249 k, 1%, 0.1 W, 0603                                                | 0603                         | Production     | Yageo                      | RC0603FR-07249KL           | Volume Production        | Digi-Key   | 311-249KHRCIT-ND       | 0.1                   | 0.1                 | Digi-Key   | 311-249KHRCIX-ND       | 0.1                   | 0.1                 |
|     | R15, R151                              | 2        | 0.012     | CSR1206FK12L0      | Stackpole Electronics Inc.  | RES, 0.012, 1%, 0.15 W, 1206                                               | 1206                         | Validation     | Stackpole Electronics Inc. | CSR1206FK12L0              | Unknown                  | Digi-Key   | CSR1206FK12L0CT-ND     |                       |                     |            |                        |                       |                     |
|     | R16                                    | 1        | 59.0k     | RC0603FR-0759KL    | Yageo                       | RES, 59.0 k, 1%, 0.1 W, 0603                                               | 0603                         | Production     | Yageo                      | RC0603FR-0759KL            | Volume Production        | Mouser     | 603-RC0603FR-0759KL    | 0.1                   | 0.1                 | Digi-Key   | 311-59.0KHRCIX-ND      | 0.1                   | 0.1                 |
|     | R17                                    | 1        | 10.0      | RC0603FR-0710RL    | Yageo                       | RES, 10.0, 1%, 0.1 W, 0603                                                 | 0603                         | Production     | Yageo                      | RC0603FR-0710RL            | Volume Production        | Digi-Key   | 311-10.0HRCIX-ND       | 0.1                   | 0.1                 | Digi-Key   | 311-10.0HRCIT-ND       | 0.1                   | 0.1                 |
|     | R18, R22, R25, R26                     | 4        | 100       | RC0603FR-0710DRL   | Yageo                       | RES, 100, 1%, 0.1 W, 0603                                                  | 0603                         | Production     | Yageo                      | RC0603FR-0710DRL           | Volume Production        | Digi-Key   | 311-100HRCIX-ND        | 0.024                 | 0.24                | Digi-Key   | 311-100HRCIT-ND        | 0.024                 | 0.24                |
|     | R20                                    | 2        | 1.240k    | RC0603FR-07240KL   | Yageo                       | RES, 240 k, 1%, 0.1 W, 0603                                                | 0603                         | Production     | Yageo                      | RC0603FR-07240KL           | Volume Production        | Digi-Key   | 311-240KHRCIX-ND       | 0.1                   | 0.1                 | Digi-Key   | 311-240KHRCIT-ND       | 0.1                   | 0.1                 |
|     | R23                                    | 1        | 10.0k     | RC0603FR-0710KL    | Yageo                       | RES, 10.0 k, 1%, 0.1 W, 0603                                               | 0603                         | Production     | Yageo                      | RC0603FR-0710KL            | Volume Production        | Digi-Key   | 311-10.0KHRCIX-ND      | 0.1                   | 0.1                 | Digi-Key   | 311-10.0KHRCIT-ND      | 0.1                   | 0.1                 |
|     | R24                                    | 1        | 93.1 k    | RC0603FR-07931KL   | Yageo                       | RES, 93.1 k, 1%, 0.1 W, 0603                                               | 0603                         | Production     | Yageo                      | RC0603FR-07931KL           | Volume Production        | Digi-Key   | 311-93.1KHRCIX-ND      | 0.1                   | 0.1                 | Digi-Key   | 311-93.1KHRCIT-ND      | 0.1                   | 0.1                 |
|     | R29, R31                               | 2        | 84.5 k    | RC0603FR-07845KL   | Yageo                       | RES, 84.5 k, 1%, 0.1 W, 0603                                               | 0603                         | Production     | Yageo                      | RC0603FR-07845KL           | Volume Production        | Digi-Key   | 311-84.5KHRCIX-ND      | 0.1                   | 0.2                 | Digi-Key   | 311-84.5KHRCIT-ND      | 0.1                   | 0.2                 |
|     | R30, R32                               | 2        | 20.0k     | RC0603FR-0720KL    | Yageo                       | RES, 20.0 k, 1%, 0.1 W, 0603                                               | 0603                         | Production     | Yageo                      | RC0603FR-0720KL            | Volume Production        | Digi-Key   | 311-20.0KHRCIX-ND      | 0.1                   | 0.2                 | Digi-Key   | 311-20.0KHRCIT-ND      | 0.1                   | 0.2                 |
|     | R33                                    | 1        | 1.280k    | RC0603FR-07280KL   | Yageo                       | RES, 280 k, 1%, 0.1 W, 0603                                                | 0603                         | Production     | Yageo                      | RC0603FR-07280KL           | Volume Production        | Digi-Key   | 311-280KHRCIX-ND       | 0.1                   | 0.1                 | Digi-Key   | 311-280KHRCIT-ND       | 0.1                   | 0.1                 |
|     | TP1                                    | 1        | 500R      |                    | Keystone                    | Text Point, Compact, Orange, TH                                            | Orange Compact Testpoint     | Validation     | Keystone Electronics       | 500R                       | Volume Production        | Digi-Key   | 36-500R-ND             | 0.42                  | 0.42                | Newark     | 52F7285                | 22.6                  | 22.6                |
|     | U1                                     | 1        | LM5175PWV |                    | Texas Instruments           | LM5175, 3.2V Wide VIN & Switch Synchronous Buck-Boost Controller, PWP0028F | PWP0028F                     | Not managed    |                            |                            |                          |            |                        |                       |                     |            |                        |                       |                     |