

**TIDA-01057 REV E1 Bill of Materials**

| Designator   | Quantity | Value  | PartNumber           | Manufacturer | Description   | PackageReference                 |
|--|----------|--------|----------------------|--------------|---|----------------------------------|
| !PCB   | 1        |        | TIDA-01057           | Any          | Printed Circuit Board   |                                  |
| 24Vin, GNDin,<br>TP3, TP8, TP25,<br>TP26, TP27,<br>TP28, TP29,<br>TP30, TP_3P3V,<br>TP_3P8V,<br>TP_5P5V,<br>TP_18P5V,<br>TPAGND1,<br>TPAGND2,<br>TPAGND3,<br>TPAGND4,<br>TPGND1,<br>TPGND2,<br>TPGND3,<br>TPGND4, TPV4 | 23       |        | 5015                 | Keystone     | Test Point, Miniature, SMT                                      | Testpoint_Keystone_<br>Miniature |
| C1, C43, C47,<br>C354, C389,<br>C391, C408, Cin,<br>Cin1, Cin2, Cin3,<br>Cout2   | 12       | 10uF   | UMK325AB7106KM-T     | Taiyo Yuden  | CAP, CERM, 10 µF, 50 V, +/- 10%, X7R, 1210                      | 1210                             |
| C3   | 1        | 10uF   | GRM21BR71A106KE51L   | MuRata       | CAP, CERM, 10uF, 10V, +/-10%, X7R, 0805                         | 0805                             |
| C4   | 1        | 1uF    | GRM188R71A105KA61D   | MuRata       | CAP, CERM, 1uF, 10V, +/-10%, X7R, 0603                          | 0603                             |
| C5   | 1        | 47uF   | GRM32ER71A476KE15L   | MuRata       | CAP, CERM, 47 µF, 10 V, +/- 10%, X7R, 1210                      | 1210                             |
| C9, C12, C13,<br>C16, C17, C20,<br>Cout4   | 7        | 47uF   | C3216X5R1E476M160AC  | TDK          | CAP, CERM, 47 µF, 25 V, +/- 20%, X5R, 1206_190                  | 1206_190                         |
| C10  | 1        | 1000pF | CGA3E2X7R2A102K080AA | TDK          | CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603 | 0603                             |
| C11, C42, C45,<br>Cout3  | 4        | 1uF    | C2012X7S2A105K125AB  | TDK          | CAP, CERM, 1 µF, 100 V, +/- 10%, X7S, 0805                      | 0805                             |
| C14, C18   | 2        | 1000pF | GRM1885C1H102FA01J   | MuRata       | CAP, CERM, 1000 pF, 50 V, +/- 1%, C0G/NP0, 0603                 | 0603                             |
| C15, C19, C318,<br>C319, C321,<br>C339, C348,<br>C453, CR479   | 9        | 1uF    | GRM188R71E105KA12D   | MuRata       | CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0603                       | 0603                             |
| C21, C22, C57,<br>C58, C59, C60,<br>C261, C262,<br>C271, C272,<br>C284, C287,<br>C288, C289,<br>C290, C291,<br>C338, C347,<br>CR481  | 19       | 10uF   | GRM21BR71A106KE51L   | MuRata       | CAP, CERM, 10 µF, 10 V, +/- 10%, X7R, 0805                      | 0805                             |
| C23, C24, C33  | 3        | 10uF   | GRM188R61A106ME69D   | MuRata       | CAP, CERM, 10 µF, 10 V, +/- 20%, X5R, 0603                      | 0603                             |
| C25  | 1        | 0.47uF | GRM188R71E474KA12D   | MuRata       | CAP, CERM, 0.47 µF, 25 V, +/- 10%, X7R, 0603                    | 0603                             |
| C26, C28   | 2        | 22uF   | GRM188R60J226MEA0D   | MuRata       | CAP, CERM, 22 µF, 6.3 V, +/- 20%, X5R, 0603                     | 0603                             |
| C27  | 1        | 0.1uF  | GRM188R61C104KA01D   | MuRata       | CAP, CERM, 0.1 µF, 16 V, +/- 10%, X5R, 0603                     | 0603                             |

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|--|----------|---------|----------------------|----------------|---|------------------|
| C29  | 1        | 4.7uF   | GRM188R61A475MAAJ    | MuRata         | CAP, CERM, 4.7 µF, 10 V, +/- 20%, X5R, 0603                       | 0603             |
| C30  | 1        | 0.22uF  | GRM188R61A224KA01D   | MuRata         | CAP, CERM, 0.22 µF, 10 V, +/- 10%, X5R, 0603                      | 0603             |
| C31  | 1        | 0.22uF  | GCM188R71H224KA64D   | MuRata         | CAP, CERM, 0.22 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603    | 0603             |
| C32, C35   | 2        | 0.1uF   | C1608X7R1H104K080AA  | TDK            | CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603                       | 0603             |
| C34  | 1        | 0.033uF | GRM188R71H333KA61D   | MuRata         | CAP, CERM, 0.033 µF, 50 V, +/- 10%, X7R, 0603                     | 0603             |
| C37  | 1        | 910pF   | C0603C911J5GACTU     | Kemet          | CAP, CERM, 910 pF, 50 V, +/- 5%, C0G/NP0, 0603                    | 0603             |
| C38  | 1        | 10pF    | CGA3E2C0G1H100D080AA | TDK            | CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603   | 0603             |
| C39  | 1        | 150pF   | GRM1885C1H151JA01D   | MuRata         | CAP, CERM, 150 pF, 50 V, +/- 5%, C0G/NP0, 0603                    | 0603             |
| C40  | 1        | 0.022uF | GRM188R71H223KA01D   | MuRata         | CAP, CERM, 0.022 µF, 50 V, +/- 10%, X7R, 0603                     | 0603             |
| C41  | 1        | 22uF    | C2012X5R1V226M125AC  | TDK            | CAP, CERM, 22 µF, 35 V, +/- 20%, X5R, 0805                        | 0805             |
| C46  | 1        | 0.01uF  | GCM188R71H103KA37D   | MuRata         | CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603    | 0603             |
| C53, C54, C55,<br>C56, C94, C95,<br>C340, C349, C350   | 9        | 0.1uF   | GRM155R71C104KA88D   | MuRata         | CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402                       | 0402             |
| C61, C84, C85,<br>C91, C92, C93,<br>C259, C260,<br>C266, C267,<br>C268, C269,<br>C320, C454,<br>C455, C460 | 16       | 0.1uF   | C0603C104J3RACTU     | Kemet          | CAP, CERM, 0.1 µF, 25 V, +/- 5%, X7R, 0603                        | 0603             |
| C62, C449, C457,<br>C458, C459   | 5        | 10uF    | ZRB18AD71A106KE01L   | MuRata         | CAP, CERM, 10 µF, 10 V, +/- 10%, X7T, 0603                        | 0603             |
| C63, C64   | 2        | 0.1uF   | GRM155R61E104KA87D   | MuRata         | CAP, CERM, 0.1 µF, 25 V, +/- 10%, X5R, 0402                       | 0402             |
| C71, C72   | 2        | 100pF   | GCM1885C2A101JA16D   | MuRata         | CAP, CERM, 100 pF, 100 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603 | 0603             |
| C79, C80, C81,<br>C82  | 4        | 0.1uF   | GRM188R72A104KA35D   | MuRata         | CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0603                      | 0603             |
| C86, C87   | 2        | 390pF   | GRM1885C2A391JA01D   | MuRata         | CAP, CERM, 390 pF, 100 V, +/- 5%, C0G/NP0, 0603                   | 0603             |
| C88  | 1        | 1uF     | GRM188R71A105KA61D   | MuRata         | CAP, CERM, 1 µF, 10 V, +/- 10%, X7R, 0603                         | 0603             |
| C315   | 1        | 1000pF  | C1608C0G2A102J080AA  | TDK            | CAP, CERM, 1000 pF, 100 V, +/- 5%, C0G/NP0, 0603                  | 0603             |
| C322   | 1        | 22uF    | C1608X5R1A226M080AC  | TDK            | CAP, CERM, 22 µF, 10 V, +/- 20%, X5R, 0603                        | 0603             |
| C351, C352, C353   | 3        | 4.7uF   | 293D475X9025C2TE3    | Vishay-Sprague | CAP, TA, 4.7 µF, 25 V, +/- 10%, 2 ohm, SMD                        | 6032-28          |
| C355, C359,<br>C360, C367,<br>C371, C372,<br>C379, C383, C384  | 9        | 0.1uF   | C2012X7R2A104K125AA  | TDK            | CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0805                      | 0805             |
| C356, C368, C380   | 3        | 4.7uF   | C3216X7R1V475K085AC  | TDK            | CAP, CERM, 4.7 µF, 35 V, +/- 10%, X7R, 1206                       | 1206             |
| C357, C358,<br>C369, C370,<br>C381, C382   | 6        | 10uF    | GRM31CR71E106KA12L   | MuRata         | CAP, CERM, 10 µF, 25 V, +/- 10%, X7R, 1206                        | 1206             |
| C361, C373, C385   | 3        | 0.47uF  | GCM188R71E474KA64D   | MuRata         | CAP, CERM, 0.47 µF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603    | 0603             |
| C362, C375, C388   | 3        | 0.1uF   | C1005X6S1H104K050BB  | TDK            | CAP, CERM, 0.1 µF, 50 V, +/- 10%, X6S, 0402                       | 0402             |
| C363, C374, C387   | 3        | 100pF   | C0402C101J3GACTU     | Kemet          | CAP, CERM, 100 pF, 25 V, +/- 5%, C0G/NP0, 0402                    | 0402             |
| C364, C366,<br>C376, C378  | 4        | 22uF    | CGA6P1X7R1C226M250AC | TDK            | CAP, CERM, 22 µF, 16 V, +/- 20%, X7R, AEC-Q200 Grade 1, 1210      | 1210             |
| C401   | 1        | 10uF    | C3225X7S1H106K250AB  | TDK            | CAP, CERM, 10 µF, 50 V, +/- 10%, X7S, 1210                        | 1210             |

| Designator   | Quantity | Value   | PartNumber           | Manufacturer                  | Description  | PackageReference   |
|--|----------|---------|----------------------|-------------------------------|--|--|
| C402   | 1        | 0.1uF   | C1608X5R1H104K080AA  | TDK                           | CAP, CERM, 0.1 µF, 50 V, +/- 10%, X5R, 0603  | 0603   |
| C403   | 1        | 4.7uF   | GRM188R61E475KE11D   | MuRata                        | CAP, CERM, 4.7 µF, 25 V, +/- 10%, X5R, 0603  | 0603   |
| C404   | 1        | 0.47uF  | C1608X5R1H474K080AB  | TDK                           | CAP, CERM, 0.47 µF, 50 V, +/- 10%, X5R, 0603   | 0603   |
| C405   | 1        | 1uF     | C1608X7R1V105K080AC  | TDK                           | CAP, CERM, 1 µF, 35 V, +/- 10%, X7R, 0603  | 0603   |
| C406   | 1        | 22uF    | C3216X5R1V226M160AC  | TDK                           | CAP, CERM, 22 µF, 35 V, +/- 20%, X5R, 1206   | 1206   |
| C407   | 1        | 0.022uF | C0603C223K3RACTU     | Kemet                         | CAP, CERM, 0.022 µF, 25 V, +/- 10%, X7R, 0603  | 0603   |
| C452   | 1        | 0.22uF  | 0805YC224JAT2A       | AVX                           | CAP, CERM, 0.22 µF, 16 V, +/- 5%, X7R, 0805  | 0805   |
| C461   | 1        | 10pF    | C0603C100F5GAC7867   | Kemet                         | CAP, CERM, 10 pF, 50 V, +/- 1%, C0G/NP0, 0603  | 0603   |
| Cff  | 1        | 0.022uF | C1608X7R2A223K080AA  | TDK                           | CAP, CERM, 0.022 µF, 100 V, +/- 10%, X7R, 0603   | 0603   |
| Cff2, Cff3   | 2        | 0.022uF | 08055C223KAT2A       | AVX                           | CAP, CERM, 0.022uF, 50V, +/-10%, X7R, 0805   | 0805   |
| Cout1  | 1        | 22uF    | C2012JB1V226M125AC   | TDK                           | CAP, CERM, 22 µF, 35 V, +/- 20%, JB, 0805  | 0805   |
| Cout5  | 1        | 100uF   | C3225X6S0J107M250AC  | TDK                           | CAP, CERM, 100 µF, 6.3 V, +/- 20%, X6S, 1210   | 1210   |
| Cout6  | 1        | 1uF     | C0603C105K3RACTU     | Kemet                         | CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0603  | 0603   |
| Css  | 1        | 4700pF  | CGA3E2X7R2A472K080AA | TDK                           | CAP, CERM, 4700 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603                        | 0603   |
| Css2, Css3   | 2        | 0.01uF  | GRM188R70J103KA01D   | MuRata                        | CAP, CERM, 0.01 µF, 6.3 V, +/- 10%, X7R, 0603  | 0603   |
| CVCC3V,<br>CVCC5V,<br>CVCC18V  | 3        | 2.2uF   | GCM188R70J225KE22D   | MuRata                        | CAP, CERM, 2.2 µF, 6.3 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603                         | 0603   |
| D1   | 1        | 200V    | MBRS4201T3G          | ON Semiconductor              | Diode, Schottky, 200 V, 4 A, SMC   | SMC  |
| D2   | 1        | 100V    | DFLS1100-7           | Diodes Inc.                   | Diode, Schottky, 100 V, 1 A, PowerDI123  | PowerDI123   |
| D14, D18, D21,<br>D22  | 4        | Red     | 150060RS75000        | Würth Elektronik              | LED, Red, SMD  | LED_0603   |
| FDA1   | 1        |         | THS4561IRGTR         | Texas Instruments             | Low-Power, High Supply Range, 70-MHz, Fully Differential Amplifier, RGT0016C (VQFN-16) | RGT0016C   |
| H1, H2, H3, H4   | 4        |         | NY PMS 440 0025 PH   | B&F Fastener Supply           | Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead                              | Screw  |
| H5, H6, H7, H8   | 4        |         | 1902C                | Keystone                      | Standoff, Hex, 0.5"L #4-40 Nylon   | Standoff   |
| H9, H11, H13,<br>H15   | 4        |         | 9774050360R          | Würth Elektronik              | ROUND STANDOFF M3 STEEL 5MM  | ROUND STANDOFF<br>M3 STEEL 5MM                           |
| J3   | 1        |         | 61300311121          | Würth Elektronik eiSos        | Header, 2.54 mm, 3x1, Gold, TH   | Header, 2.54mm, 3x1,<br>TH                               |
| J4, J7   | 2        |         | QTH-030-01-L-D-A     | Samtec                        | Header(Shrouded), 19.7mil, 30x2, Gold, SMT   | Header (Shrouded),<br>19.7mil, 30x2, SMT                 |
| J5, J6, JMTI_-<br>18V, JPRI_-18V,<br>JSI_3.3V, JSI_5V,<br>JSI_18V,<br>JZI_3.3V, JZI_5V,<br>JZI_18V | 10       |         | 61300211121          | Würth Elektronik eiSos, Würth | Header, 2.54 mm, 2x1, Gold, TH   | Header, 2.54mm, 2x1,<br>TH                               |
| J8   | 1        |         | 691213710002         | Würth Elektronik              | Terminal Block, 2x1, Brass, TH   | Terminal Block, 2-<br>Leads, Body<br>10x8.3mm, Pitch 5mm |
| J14, J15   | 2        |         | 901-144-8RFX         | Amphenol RF                   | SMA Straight Jack, Gold, 50 Ohm, TH  | SMA Straight Jack,<br>TH                                 |
| J37, J39,<br>JTI_3.3V, JTI_5V,<br>JTI_18V, JTI_-<br>18V  | 6        |         | TMM-103-01-G-S-SM    | Samtec                        | Header, 2mm, 3x1, Gold, SMT  | Header, 2mm, 3x1,<br>SMT                                 |
| L1   | 1        | 330uH   | DR73-331-R           | Coiltronics                   | Inductor, Shielded Drum Core, Ferrite, 330 µH, 0.42 A, 1.59 ohm, SMD                   | DR73   |
| L4, L5, L8, L9,<br>L10, L12, L16,<br>L17, L18, L19   | 10       | 600 ohm | MPZ2012S601A         | TDK                           | Ferrite Bead, 600 ohm @ 100MHz, 2A, 0805   | 0805   |
| L20, L22, L24  | 3        | 3.3uH   | NR3015T3R3M          | Taiyo Yuden                   | Inductor, Wirewound, Ferrite, 3.3 µH, 1.21 A, 0.096 ohm, AEC-Q200 Grade 2, SMD         | 3x3mm  |

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|---|----------|-------|-------------------|-------------------|---|-------------------------|
| L21, L23, L25   | 3        | 6.8uH | 744025006         | Würth Elektronik  | Inductor, Shielded Drum Core, Ferrite, 6.8 µH, 1.1 A, 0.142 ohm, SMD        | Inductor, 2.8x2.8x2.8mm |
| L401  | 1        | 68uH  | 744031680         | Würth Elektronik  | Inductor, Shielded Drum Core, Metal Composite, 68 µH, 0.22 A, 1.15 ohm, SMD | 3.8x1.65x3.8mm          |
| OPAN_1, OPAP_1  | 2        |       | OPA827AIDR        | Texas Instruments | Low-Noise, High-Precision, JFET-Input OPERATIONAL AMPLIFIER, D0008A         | D0008A                  |
| R3, R4  | 2        | 0.22  | ERJ-3RQFR22V      | Panasonic         | RES, 0.22 ohm, 1%, 0.1W, 0603   | 0603                    |
| R8, R9, R10, R13, R14, R19, R24, R32, R35, R36, R56, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R211, R212, R232, R233, R234, R235, R248, R259, R279, R280, R284, R454, RB3, RB5, RB18, RMFBN2, RMFBP2 | 50       | 0     | ERJ-2GE0R00X      | Panasonic         | RES, 0, 5%, 0.063 W, 0402   | 0402                    |
| R21   | 1        | 0     | CRCW06030000Z0EA  | Vishay-Dale       | RES, 0, 5%, 0.1 W, 0603   | 0603                    |
| R22   | 1        | 4.70  | RT0603DRE074R7L   | Yageo America     | RES, 4.70, 0.5%, 0.1 W, 0603  | 0603                    |
| R40   | 1        | 215k  | RT0603BRD07215KL  | Yageo America     | RES, 215 k, 0.1%, 0.1 W, 0603   | 0603                    |
| R41   | 1        | 23.2k | RG1608P-2322-B-T5 | Susumu Co Ltd     | RES, 23.2 k, 0.1%, 0.1 W, 0603  | 0603                    |
| R42   | 1        | 1.65k | RG1608P-1651-B-T5 | Susumu Co Ltd     | RES, 1.65 k, 0.1%, 0.1 W, 0603  | 0603                    |
| R43   | 1        | 30.9k | RG1608P-3092-B-T5 | Susumu Co Ltd     | RES, 30.9 k, 0.1%, 0.1 W, 0603  | 0603                    |
| R44   | 1        | 2.15k | RT0603BRD072K15L  | Yageo America     | RES, 2.15 k, 0.1%, 0.1 W, 0603  | 0603                    |
| R45   | 1        | 52.3k | RT0603BRD0752K3L  | Yageo America     | RES, 52.3 k, 0.1%, 0.1 W, 0603  | 0603                    |
| R46   | 1        | 910   | RC0603JR-07910RL  | Yageo America     | RES, 910, 5%, 0.1 W, 0603   | 0603                    |
| R47   | 1        | 18.0k | RT0603BRD0718KL   | Yageo America     | RES, 18.0 k, 0.1%, 0.1 W, 0603  | 0603                    |
| R50, R216   | 2        | 20.0k | RG1608P-203-B-T5  | Susumu Co Ltd     | RES, 20.0 k, 0.1%, 0.1 W, 0603  | 0603                    |
| R64, R87  | 2        | 10.0k | CRCW060310K0FKEA  | Vishay-Dale       | RES, 10.0 k, 1%, 0.1 W, 0603  | 0603                    |
| R88, R89, R91   | 3        | 4.7k  | CRCW04024K70JNED  | Vishay-Dale       | RES, 4.7 k, 5%, 0.063 W, 0402   | 0402                    |
| R92   | 1        | 100   | CRCW0402100RJNED  | Vishay-Dale       | RES, 100, 5%, 0.063 W, 0402   | 0402                    |
| R95, R256, R257, R278   | 4        | 33    | CRCW040233R0JNED  | Vishay-Dale       | RES, 33, 5%, 0.063 W, 0402  | 0402                    |
| R97, R98, R214, R485, R491  | 5        | 1.00k | RG1608P-102-B-T5  | Susumu Co Ltd     | RES, 1.00 k, 0.1%, 0.1 W, 0603  | 0603                    |
| R100, R101, RDN2, RDP2  | 4        | 1.00k | RT0603BRB071KL    | Yageo America     | RES, 1.00 k, 0.1%, 0.1 W, 0603  | 0603                    |
| R103, R104  | 2        | 20.0  | RT0603BRD0720RL   | Yageo America     | RES, 20.0, 0.1%, 0.1 W, 0603  | 0603                    |
| R215, R492  | 2        | 499   | RG1608P-4990-B-T5 | Susumu Co Ltd     | RES, 499, 0.1%, 0.1 W, 0603   | 0603                    |
| R217, R218, R246, R247  | 4        | 49.9k | RG1608P-4992-B-T5 | Susumu Co Ltd     | RES, 49.9 k, 0.1%, 0.1 W, 0603  | 0603                    |
| R258  | 1        | 10.0k | RG1608P-103-B-T5  | Susumu Co Ltd     | RES, 10.0 k, 0.1%, 0.1 W, 0603  | 0603                    |
| R268  | 1        | 1.00  | CRCW06031R00FKEA  | Vishay-Dale       | RES, 1.00, 1%, 0.1 W, 0603  | 0603                    |
| R290  | 1        | 36k   | CRCW040236K0JNED  | Vishay-Dale       | RES, 36 k, 5%, 0.063 W, 0402  | 0402                    |

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|----------------------|----------|---------|----------------------|--------------------|---|------------------|
| R291, R295, R298     | 3        | 100k    | CRCW0402100KFED      | Vishay-Dale        | RES, 100 k, 1%, 0.063 W, 0402   | 0402             |
| R294                 | 1        | 20.5k   | CRCW120620K5FKEA     | Vishay-Dale        | RES, 20.5 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206   | 1206             |
| R297                 | 1        | 5.62k   | PCF0402-12-5K62BT1   | TT Electronics/IRC | RES, 5.62 k, 0.1%, 0.063 W, 0402  | 0402             |
| R401                 | 1        | 58.3k   | RT0603BRD0758K3L     | Yageo America      | RES, 58.3 k, 0.1%, 0.1 W, 0603  | 0603             |
| R402                 | 1        | 1.00Meg | RC0603FR-071ML       | Yageo America      | RES, 1.00 M, 1%, 0.1 W, 0603  | 0603             |
| R404                 | 1        | 80.6k   | CRCW060380K6FKEA     | Vishay-Dale        | RES, 80.6 k, 1%, 0.1 W, 0603  | 0603             |
| R486                 | 1        | 2.49k   | RG1608P-2491-B-T5    | Susumu Co Ltd      | RES, 2.49 k, 0.1%, 0.1 W, 0603  | 0603             |
| R488                 | 1        | 4.99k   | RG1608P-4991-B-T5    | Susumu Co Ltd      | RES, 4.99 k, 0.1%, 0.1 W, 0603  | 0603             |
| R489                 | 1        | 4.75    | CRCW06034R75FKEA     | Vishay-Dale        | RES, 4.75, 1%, 0.1 W, 0603  | 0603             |
| R494                 | 1        | 30.0k   | RG1608P-303-B-T5     | Susumu Co Ltd      | RES, 30.0 k, 0.1%, 0.1 W, 0603  | 0603             |
| RDN1, RDP1           | 2        | 0       | ERJ-3GEY0R00V        | Panasonic          | RES, 0, 5%, 0.1 W, 0603   | 0603             |
| Renb                 | 1        | 20.5k   | CRCW080520K5FKEA     | Vishay-Dale        | RES, 20.5 k, 1%, 0.125 W, 0805  | 0805             |
| Renb2, Renb3         | 2        | 3.57k   | RG1608P-3571-B-T5    | Susumu Co Ltd      | RES, 3.57 k, 0.1%, 0.1 W, 0603  | 0603             |
| Rent                 | 1        | 118k    | RT0805BRD07118KL     | Yageo America      | RES, 118k ohm, 0.1%, 0.125W, 0805   | 0805             |
| Rent2, Rent3         | 2        | 68.1k   | RT0603BRD0768K1L     | Yageo America      | RES, 68.1 k, 0.1%, 0.1 W, 0603  | 0603             |
| RES3V, RES5V, RES18V | 3        | 100k    | RG1608P-104-B-T5     | Susumu Co Ltd      | RES, 100 k, 0.1%, 0.1 W, 0603   | 0603             |
| Rfbb                 | 1        | 1.50k   | RG1608P-152-B-T5     | Susumu Co Ltd      | RES, 1.50 k, 0.1%, 0.1 W, 0603  | 0603             |
| Rfbb3, Rfbb5         | 2        | 1.07k   | RT0805BRD071K07L     | Yageo America      | RES, 1.07 k, 0.1%, 0.125 W, 0805  | 0805             |
| Rfbt                 | 1        | 34.0k   | RT0603BRD0734KL      | Yageo America      | RES, 34.0 k, 0.1%, 0.1 W, 0603  | 0603             |
| Rfbt2                | 1        | 6.34k   | CPF0603B6K34E        | TE Connectivity    | RES, 6.34 k, 0.1%, 0.063 W, 0603  | 0603             |
| Rfbt3                | 1        | 4.02k   | RG1608P-4021-B-T5    | Susumu Co Ltd      | RES, 4.02 k, 0.1%, 0.1 W, 0603  | 0603             |
| Ron                  | 1        | 383k    | RT0603BRD07383KL     | Yageo America      | RES, 383 k, 0.1%, 0.1 W, 0603   | 0603             |
| Ron2                 | 1        | 113k    | RT0603BRD07113KL     | Yageo America      | RES, 113 k, 0.1%, 0.1 W, 0603   | 0603             |
| Ron3                 | 1        | 78.7k   | RT0603BRD0778K7L     | Yageo America      | RES, 78.7 k, 0.1%, 0.1 W, 0603  | 0603             |
| RR413                | 1        | 0.22    | ERJ-3RQFR22V         | Panasonic          | RES, 0.22, 1%, 0.1 W, 0603  | 0603             |
| U3                   | 1        |         | REF6050IDGKR         | Texas Instruments  | High-Precision Voltage Reference with Integrated High-Bandwidth Buffer, DGK0008A (VSSOP-8)  | DGK0008A         |
| U3P8V, U5P5V, U18P5V | 3        |         | LMS3635MQRNLRQ1      | Texas Instruments  | 3.5A Synchronous Buck Regulator for Automotive Applications, RNL0022A (VQFN-HR-22)  | RNL0022A         |
| U4                   | 1        |         | OPA376AIDBVR         | Texas Instruments  | Precision, Low Noise, Low Iq Operational Amplifier, 2.2 to 5.5 V, -40 to 125 degC, 5-pin SOT23 (DBV0005A), Green (RoHS & no Sb/Br)  | DBV0005A         |
| U5                   | 1        |         | LMZ14202TZX-ADJ/NOPB | Texas Instruments  | 2A SIMPLE SWITCHER® Power Module with 42V Maximum Input, 7 pin TO-PMOD  | TZA07A           |
| U6, U7, U8           | 3        |         | TPS7A4700RGWR        | Texas Instruments  | 36-V, 1-A, 4.17-µVRMS, RF LDO Voltage Regulator, RGW0020A   | RGW0020A         |
| U9                   | 1        |         | LM5574MT             | Texas Instruments  | SIMPLE SWITCHER® 75V, 0.5A Step-Down Switching Regulator, 16-pin TSSOP  | MTC16            |
| U10                  | 1        |         | LM7705MM/NOPB        | Texas Instruments  | Low Noise Negative Bias Generator, 8-pin Mini SOIC, Pb-Free   | MUA08A           |
| U11                  | 1        |         | TPS7A3001MDGNTEP     | Texas Instruments  | Single Output High PSRR LDO, 200 mA, Adjustable -1.18 to -33 V Output, 3 to -36 V Input, with Ultra-Low Noise, 8-pin MSOP (DGN), -55 to 125 degC, Green (RoHS & no Sb/Br) | DGN0008D         |
| U13, U14             | 2        |         | BR24G32FVT-3AGE2     | Rohm               | I2C BUS EEPROM (2-Wire), TSSOP-B8   | TSSOP-8          |
| U15                  | 1        |         | LMK61E2-SIAR         | Texas Instruments  | Ultra-Low Jitter Programmable Oscillator with Internal EEPROM, SIA0008B   | SIA0008B         |
| U18                  | 1        |         | SN74AUP1G80DCKR      | Texas Instruments  | LOW-POWER SINGLE POSITIVE-EDGE-TRIGGERED D-TYPE FLIP-FLOP, DCK0005A   | DCK0005A         |
| U19                  | 1        |         | SN74AHC1G04DBVR      | Texas Instruments  | SINGLE SCHMITT-TRIGGER INVERTER GATE, DBV0005A  | DBV0005A         |
| U22                  | 1        |         | LMZ14201TZX-ADJ/NOPB | Texas Instruments  | 1A SIMPLE SWITCHER® Power Module with 42V Maximum Input, 7 pin TO-PMOD  | TZA07A           |
| U23                  | 1        |         | LMZ14203TZ-ADJ/NOPB  | Texas Instruments  | 3A SIMPLE SWITCHER® Power Module with 42V Maximum Input Voltage, 7-pin TO-PMOD, Pb-Free   | TZA07A           |
| U33                  | 1        |         | LMK00804BPW          | Texas Instruments  | Low Skew, 1-to-4 Multiplexed Differential/LVCMOS-to-LVCMOS/TTL Fanout Buffer, PW0016A   | PW0016A          |

| Designator                               | Quantity | Value   | PartNumber           | Manufacturer      | Description  | PackageReference      |
|--|----------|---------|----------------------|-------------------|--|-----------------------|
| U401                                     | 1        |         | LM46001PWPR          | Texas Instruments | SIMPLE SWITCHER 3.5 V to 60 V 1 A Synchronous Step-Down Voltage Converter, PWP0016G (TSSOP-16)   | PWP0016G              |
| U414                                     | 1        |         | OPA378AIDBVT         | Texas Instruments | Low-Noise, 900 kHz, RRIO, Precision Operational Amplifier, Zero-Drift Series, 2.2 to 5.5 V, -40 to 125 degC, 5-pin SOT23 (DBV0005A), Green (RoHS & no Sb/Br) | DBV0005A              |
| U415                                     | 1        |         | OPA625IDBVR          | Texas Instruments | High-Bandwidth, High-Precision, Low THD+N, 16-Bit and 18-Bit Analog-to-Digital Converter (ADC) Drivers, DBV0006A   | DBV0006A              |
| U422                                     | 1        |         | REF5040AIDGKT        | Texas Instruments | Low Noise, Very Low Drift, Precision Voltage Reference, -40 to 125 degC, 8-pin MSOP (DGK), Green (RoHS & no Sb/Br)   | DGK0008A              |
| UADS1                                    | 1        |         | ADS8900BRGER         | Texas Instruments | 20-Bit, High-Speed SAR ADCs With Integrated Reference Buffer, Integrated LDO, and multiSPI Digital Interface, RGE0024H (VQFN-24)                             | RGE0024H              |
| C83, CMFB                                | 0        | 68pF    | GRM1885C2A680JA01D   | MuRata            | CAP, CERM, 68 pF, 100 V, +/- 5%, C0G/NP0, 0603   | 0603                  |
| C89, C90, C117, C118, C316, C317         | 0        | 1000pF  | C1608C0G2A102J080AA  | TDK               | CAP, CERM, 1000 pF, 100 V, +/- 5%, C0G/NP0, 0603   | 0603                  |
| C96, C97                                 | 0        | 100pF   | GCM1885C2A101JA16D   | MuRata            | CAP, CERM, 100 pF, 100 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603  | 0603                  |
| C104, C105, C106, C107                   | 0        | 0.1uF   | GRM188R72A104KA35D   | MuRata            | CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0603   | 0603                  |
| C108, C112, C116, C120, C121, C122       | 0        | 0.1uF   | C0603C104J3RACTU     | Kemet             | CAP, CERM, 0.1 µF, 25 V, +/- 5%, X7R, 0603   | 0603                  |
| C109, C115                               | 0        | 1000pF  | C0603C102J5GAC       | Kemet             | CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 0603  | 0603                  |
| C110, C113                               | 0        | 130pF   | GRM1885C2A131JA01D   | MuRata            | CAP, CERM, 130 pF, 100 V, +/- 5%, C0G/NP0, 0603  | 0603                  |
| C111, C114                               | 0        | 390pF   | GRM1885C2A391JA01D   | MuRata            | CAP, CERM, 390 pF, 100 V, +/- 5%, C0G/NP0, 0603  | 0603                  |
| C119                                     | 0        | 1uF     | GRM188R71A105KA61D   | MuRata            | CAP, CERM, 1 µF, 10 V, +/- 10%, X7R, 0603  | 0603                  |
| C304, C305, C306, C307, C308, C343, C345 | 0        | 10uF    | GRM21BR71A106KE51L   | MuRata            | CAP, CERM, 10 µF, 10 V, +/- 10%, X7R, 0805   | 0805                  |
| C323                                     | 0        | 22uF    | C1608X5R1A226M080AC  | TDK               | CAP, CERM, 22 µF, 10 V, +/- 20%, X5R, 0603   | 0603                  |
| C335                                     | 0        | 0.01uF  | CGA3E2C0G1H103J080AA | TDK               | CAP, CERM, 0.01 µF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603  | 0603                  |
| C344, C346                               | 0        | 0.1uF   | GRM155R71C104KA88D   | MuRata            | CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402  | 0402                  |
| C409                                     | 0        | 100pF   | 885012006057         | Wurth Elektronik  | CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603   | 0603                  |
| FID1, FID2, FID3, FID4, FID5, FID6       | 0        |         | N/A                  | N/A               | Fiducial mark. There is nothing to buy or mount.   | Fiducial              |
| J18, J19                                 | 0        |         | 901-144-8RFX         | Amphenol RF       | SMA Straight Jack, Gold, 50 Ohm, TH  | SMA Straight Jack, TH |
| J38                                      | 0        |         | TMM-103-01-G-S-SM    | Samtec            | Header, 2mm, 3x1, Gold, SMT  | Header, 2mm, 3x1, SMT |
| L6, L7                                   | 0        | 600 ohm | MPZ2012S601A         | TDK               | Ferrite Bead, 600 ohm @ 100MHz, 2A, 0805   | 0805                  |
| OPAN_2, OPAP_2                           | 0        |         | OPA827AIDR           | Texas Instruments | Low-Noise, High-Precision, JFET-Input OPERATIONAL AMPLIFIER, D0008A  | D0008A                |

| Designator   | Quantity | Value | PartNumber       | Manufacturer      | Description  | PackageReference |
|--|----------|-------|------------------|-------------------|--|------------------|
| R11, R12, R15,<br>R17, R18, R20,<br>R25, R26, R27,<br>R29, R30, R31,<br>R33, R34, R213,<br>R223, R225,<br>R226, R240,<br>R250, R252,<br>R255, R260,<br>R262, R263,<br>R288, R453,<br>R457, REN0,<br>REN1, RMFBN,<br>RMFBP, RR457 | 0        | 0     | ERJ-2GE0R00X     | Panasonic         | RES, 0, 5%, 0.063 W, 0402  | 0402             |
| R90  | 0        | 4.7k  | CRCW04024K70JNED | Vishay-Dale       | RES, 4.7 k, 5%, 0.063 W, 0402  | 0402             |
| R99  | 0        | 249   | CRCW0603249RFKEA | Vishay-Dale       | RES, 249, 1%, 0.1 W, 0603  | 0603             |
| R107, R108, R110   | 0        | 1.00k | RG1608P-102-B-T5 | Susumu Co Ltd     | RES, 1.00 k, 0.1%, 0.1 W, 0603   | 0603             |
| R112, R113   | 0        | 124   | RC0603FR-07124RL | Yageo America     | RES, 124, 1%, 0.1 W, 0603  | 0603             |
| R114, R116,<br>RDN4, RDP4  | 0        | 1.00k | RT0603BRB071KL   | Yageo America     | RES, 1.00 k, 0.1%, 0.1 W, 0603   | 0603             |
| R115, R117   | 0        | 20.0  | RT0603BRD0720RL  | Yageo America     | RES, 20.0, 0.1%, 0.1 W, 0603   | 0603             |
| R261   | 0        | 10.0k | RG1608P-103-B-T5 | Susumu Co Ltd     | RES, 10.0 k, 0.1%, 0.1 W, 0603   | 0603             |
| R269   | 0        | 1.00  | CRCW06031R00FKEA | Vishay-Dale       | RES, 1.00, 1%, 0.1 W, 0603   | 0603             |
| RDN3, RDP3   | 0        | 0     | ERJ-3GEY0R00V    | Panasonic         | RES, 0, 5%, 0.1 W, 0603  | 0603             |
| U1, U2   | 0        |       | OPA625IDBVR      | Texas Instruments | High Bandwidth, High Precision, Low Noise and Distortion Amplifier with Ultra-Fast Transition time Low Power mode, DBV0006A      | DBV0006A         |
| U31  | 0        |       | SN74AUP1G80DCKR  | Texas Instruments | LOW-POWER SINGLE POSITIVE-EDGE-TRIGGERED D-TYPE FLIP-FLOP, DCK0005A  | DCK0005A         |
| U32  | 0        |       | SN74AHC1G04DBVR  | Texas Instruments | SINGLE SCHMITT-TRIGGER INVERTER GATE, DBV0005A   | DBV0005A         |
| UADS2  | 0        |       | ADS8900BRGER     | Texas Instruments | 20-Bit, High-Speed SAR ADCs With Integrated Reference Buffer, Integrated LDO, and multiSPI Digital Interface, RGE0024H (VQFN-24) | RGE0024H         |

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