# Bill of materials

**Table 1. STEVAL-A6983IV1 bill of materials**

| Item | Q.ty | Ref. | Part/value | Description | Manufacturer | Order code |
|---|---|---|---|---|---|---|
| 1 | 1 | U1, QFPN 3X3X0.80 16L PITCH 0.50 | | Isobuck converter A6983I | ST | A6983IQTR |
| 2 | 1 | U2 | | Transformer | Coilcraft | ZB1346-BE |
| 3 | 1 | LDO, DFN 6L 2X2X 0.75 PITCH0.65 AG | | Linear regulator | ST | LDH40PURY |
| 4 | 1 | TL431, SOT23 | | Shunt voltage reference | ST | TL431BL3T |
| 5 | 1 | R1 | | SMD resistor | | |
| 6 | 1 | R2 | | SMD resistor | | |
| 7 | 1 | R3 | | SMD resistor | | |
| 7 | 1 | R4 | | SMD resistor | | |
| 8 | 1 | Rs1 | | SMD resistor | | |
| 9 | 1 | Rb | 0Ω | SMD resistor | YAGEO | RC0603FR-070RL |
| 10 | 1 | Rs2 | 300Ω | SMD resistor | Vishay | CRCW0805300RFKEAHP |
| 11 | 1 | Rf1 | | SMD resistor | | |
| 12 | 1 | Rf2 | | SMD resistor | | |
| 13 | 1 | Ren1 | 100kΩ | SMD resistor | YAGEO | AC0603FR-07100KL |
| 14 | 1 | Ren2 | | SMD resistor | | |
| 16 | 1 | Rfb1 | 360kΩ | SMD resistor | YAGEO | RC0603FR-0775KL |
| 15 | 1 | Rfb2 | 75kΩ | SMD resistor | | RC0603FR-07360KL |
| 17 | 1 | Rfsw1 | 0Ω | SMD resistor | YAGEO | RC0603FR-070RL |
| 18 | 1 | Rfsw2 | | SMD resistor | | |
| 19 | 1 | Rpg2 | | SMD resistor | | |
| 20 | 1 | Rpg1 | | SMD resistor | | |
| 21 | 1 | Rbs | 0Ω | SMD resistor | YAGEO | RC0603FR-070RL |
| 22 | 1 | Rldo | 100Ω | SMD resistor | YAGEO | RC0603FR-10100RL |
| 23 | 1 | C1 | | MLCC | | |
| 24 | 1 | Cldo | 1uF | MLCC | Samsung Electro Mechanics | CL10A105KB8NNNC |
| 25 | 1 | Cff | | MLCC | | |
| 26 | 1 | Cb | 100nF | MLCC | TDK | CGA3E2X7R1H104K080AA |
| 27 | 1 | Cs1 | | MLCC | | |
| 28 | 1 | Cin1 | 10uF | MLCC | Samsung Electro Mechanics | CL31B106KBHNNNE |
| 29 | 2 | Cin2, Cin3 | 1uF | MLCC | TDK | CGA4J3X7R1H105M125AB |

| Item | Q.ty | Ref. | Part/value | Description | Manufacturer | Order code |
|---|---|---|---|---|---|---|
| 30 | 1 | Cin4 | 100uF | Aluminium Organic Polymer Capacitor | KEMET | A768MS107M1HLAV024 |
| 31 | 3 | Cout1, Cout2, Cout3 | 22uF | MLCC | Taiyo Yuden | EMK316BB7226ML-T |
| 32 | 1 | Ciso+ | | MLCC | | |
| 33 | 1 | Ciso- | | MLCC | | |
| 34 | 1 | Cs2 | 180pF | MLCC | Vishay | VJ0603A181FXAPW1BC |
| 35 | 4 | Csec, Cf1, Cf2, Cf3 | 10uF | MLCC | Samsung Electro Mechanics | CL31B106KBHNNNE |
| 39 | 1 | Cck | | MLCC | | |
| 40 | 1 | Cvcc | 1uF | MLCC | TDK | CGA3E1X7R1C105K080AC |
| 41 | 1 | Cbs | | MLCC | | |
| 42 | 1 | Cout4 | | MLCC | | |
| 43 | 1 | Lf1 | 220Ω | Ferrite bead | TDK | MPZ2012S221ATD25 |
| 44 | 1 | Lf2 | 6.8uH | Inductor | Coilcraft | XGL4030-682MEC |
| 45 | 1 | D1, SMA Flat | | Power Schottky diode | ST | STPS1170AF |
| 48 | 12 | TP1…TP12 | | Turret Solder | ETTINGER | 13.14.239 |

**Table 2. Main parameters of the transformer ZB1346-BE**

| Description | Value |
|---|---|
| Turn ratio | 1:6 |
| Magnetizing inductance | 13.5 µH |
| Leakage inductance | 140 nH |
| Primary winding resistance | 60 mΩ |
| Secondary winding resistance | 1.35 Ω |

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