

RutAdptBoard-TextToSpeech-REV2.0 Bill Of Materials

| Item # | Designator | Part Description | Value | Footprint | Specification | Quantity | Manufacturer | Manufacturer Part No. | Supplier | Supplier part number |
|--------|--|---|--------------------------|------------------------|-------------------|----------|--------------------|-----------------------|----------|----------------------|
| 1 | C1, C2, C6, C11, C13, C19, C20, C21, C22, C23, C27, C28, C29 | Ceramic Capacitor | 100nF | C0402 | X7R, 16V, 10% | 13 | Samsung EM | CL05B104KO5NNNC | Rutronik | KKK21419 |
| 2 | C3, C10 | Ceramic Capacitor | 10nF | C0402 | X7R, 16V, 10% | 2 | Samsung EM | CL05B103KO5NNNC | Rutronik | KKK22033 |
| 3 | C4, C5, C15, C25, C26, C30, C31 | Ceramic Capacitor | 4.7uF | C0402 | X5R, 6.3V, 20% | 7 | Samsung EM | CL05A475MQ5NRNC | Rutronik | KKS1042 |
| 4 | C7, C12, C14 | Ceramic Capacitor | 1uF | C0402 | X7R, 16V, 10% | 3 | Samsung EM | CL05A105KO5NNNC | Rutronik | KKS1052 |
| 5 | C8, C9 | Ceramic Capacitor | 39nF | C0402 | X7R, 16V, 10% | 2 | Samsung EM | KC39N0603X7R050K | Rutronik | KKK14359 |
| 6 | C16 | Ceramic Capacitor | 4.7nF | C0402 | X7R, 50V, 10% | 1 | Yageo | CC0402KRX7R9BB472 | Rutronik | KKK17246 |
| 7 | C17 | Ceramic Capacitor | 33pF | C0402 | NP0, 50V, 5% | 1 | Yageo | CC0402JRNPO9BN330 | Rutronik | KKK14557 |
| 8 | C18, C24 | Ceramic Capacitor | 10pF | C0402 | NP0, 50V, 5% | 2 | Yageo | CC0402JRNPO9BN120 | Rutronik | KKK15647 |
| 9 | D1, D2, D6 | Typical SMD LED | LT QH9G-Q2OO-25-2Z4Y | PICOLED | Green, 5mA | 3 | OSRAM | LT QH9G-Q2OO-25-2Z4 | Rutronik | LED22816 |
| 10 | D3 | Typical SMD LED | VLMS1500-GS08 | PICOLED | Red, 5mA | 1 | Vishay | VLMS1500-GS08 | Rutronik | LED24641 |
| 11 | D4, D5 | Low VF Schottky Barrier Rectifier | RSX201LAM30TR | SOD323 | 30V, 2A | 2 | ROHM | RSX201LAM30TR | Rutronik | RB168VAM150TR |
| 12 | GND1 | SMT Test Point | 5019 | 5019_KEYSTONE | 3.81*2.03 | 1 | Keystone Electrinc | 5019 | Rutronik | BAT4950 |
| 13 | J1 | Micro USB Connector | MCR-B-S-RA-TSMT-CS4A-T/R | MCR-B-S-RA-TSMT-Type B | | 1 | ADAM TECH | MCR-B-S-RA-TSMT-CS4 | Rutronik | CONIO1874 |
| 14 | L1, L2 | noise suppression inductor | NFZ15SG331SN11 | 0402-A | DCR0.3Ω, 0.65A, | 2 | Murata | NFZ15SG331SN11 | Rutronik | NFZ15SG331SN11D |
| 15 | L3 | noise suppression inductor | NFZ15SG101SN11 | 0402-A | DCR0.1Ω, 1.1A, 1 | 1 | Murata | NFZ15SG101SN11 | Rutronik | NFZ15SG101SN11D |
| 16 | P1 | Arduino Connectors KIT | RS1-10-G-413 | HDR1X10_3 | 10 pos. 2,54mm | 1 | ADAM TECH | RS1-10-G-413 | Rutronik | CONN1443 |
| 17 | P2,P6 | Arduino Connectors KIT | RS1-08-G-413 | HDR1X8_3D | 8 pos. 2,54mm | 2 | ADAM TECH | RS1-08-G-413 | Rutronik | CONN2043 |
| 18 | P5 | Arduino Connectors KIT | RS1-06-G-413 | HDR1X6_3D | 6 pos. 2,54mm | 1 | ADAM TECH | RS1-06-G-413 | Rutronik | CONN2042 |
| 21 | R1, R4 | Thick Film Resistor | 49.9K | R0402 | 1% 0,063W | 2 | Yageo | RC0402FR-0749K9L | Rutronik | WRC34049 |
| 20 | R2, R3 | Thick Film Resistor | 510 | R0402 | 5% 0,063W | 2 | Yageo | RC0402JR-071ML | Rutronik | WRC33904 |
| 21 | R5, R6, R8, R16 | Thick Film Resistor | 1K | R0402 | 5% 0,063W | 4 | ASJ, Yageo | CR10-221-JK, RC0402JR | Rutronik | WRC35108, WRC33833 |
| 22 | R7, R9, R10, R11, R15, R19, R21, R23, R24, R25, R28, R29 | Thick Film Resistor | 10K | R0402 | 5% 0,063W | 12 | ASJ, Yageo | CR10-103-JK, RC0402JR | Rutronik | WRC40976, WRC33854 |
| 23 | R12 | Thick Film Resistor | 1M | R0402 | 5% 0,063W | 1 | Yageo | RC0402JR-071ML | Rutronik | WRC33904 |
| 24 | R13 | Thick Film Resistor | 200K | R0402 | 5% 0,063W | 1 | ASJ | AF0402JR-07200KL | Rutronik | AF0402JR-07200KL |
| 25 | R14 | Thick Film Resistor | 10M | R0402 | 5% 0,063W | 1 | ASJ | AC0603JR-0710ML | Rutronik | WRC53565 |
| 26 | R26 | Thick Film Resistor | 100K | R0402 | 5% 0,063W | 1 | Yageo | RC0402JR-07100KL | Rutronik | WRC33855 |
| 27 | R27 | Thick Film Resistor | 2.2K | R0402 | 5% 0,063W | 1 | Yageo | RC0402JR-072K2L | Rutronik | WRC33840 |
| 28 | S1 | SWITCH SLIDE DIP SPST 25MA 24V | A6H-8102 | SOIC127P670X195-1 | 8 pos. 2,54mm | 1 | Omron | A6H-8102 | Rutronik | A6H-8102 |
| 29 | SB2, SB6, SB9, SB12, SB14 | JUMPER | 0R | SB_0402 | 1/16W | 5 | Yageo | RC04020R | Rutronik | WRC52534 |
| 30 | U1 | Amplifier IC Class D | DFN8 | SON65P300X300X65 | 5.5V 2.8W x 1 @ | 1 | STMicroelectroni | TS4962IQT | Rutronik | ICOP6251 |
| 31 | U2 | USB Bridge, USB to I²C USB 2.0 UART Interface | - | QFN50P500X500X10 | 32-QFN (5x5) | 1 | Cypress Semicon | CY7C65215-32LTXI | Rutronik | CY7C65215-32LTXI |
| 32 | U3 | 1.2 A current limited high-side power switch with thermal | ST890DTR | DFN8L_3X3 | 2.7 .. 5.5V, 1.2A | 1 | STMicroelectroni | ST890DTR | Rutronik | ST890DTR |
| 33 | U4 | Ultra large bandwidth ESD protection | USBULC6-2M6 | MICRO_QFN_6L | 6V, 0.6pF | 1 | STMicroelectroni | USBULC6-2M6 | Rutronik | DTRL11259 |
| 34 | U5 | 300 mA low quiescent current very low noise LDO | LDK130M33R | SOT23-5L | 3.3V, 300mA | 1 | STMicroelectroni | LDK130M33R | Rutronik | ICSPR9313 |
| 35 | U6 | Text-to-Speech IC | S1V3G340F01A900 | LQFP12-48 | | 1 | Epson Electronics | S1V3G340F01A900 | Rutronik | ICPER6856 |
| 36 | U7 | IC FLASH 64M SPI 108MHZ | - | SOIC127P800X216-8 | 64Mb (8M x 8) | 1 | Cypress Semicon | S25FL064LABMFN010 | Rutronik | S25FL064LABMFN010 |
| 37 | X1 | XTAL 3.2x1.5mm | X1A000141000312 | XTAL_3215 | 32.768 kHz, 12.5μ | 1 | Epson Electronics | X1A000141000312 | Rutronik | QUARZ6278 |