



Emic 2 Text-to-Speech Module (Parallax #30016)

Bill-of-Materials

HW A, Document 1.0, March 8, 2012

Notes:

1) Do not populate: J3

| Item | Quantity | Reference | Manufacturer | Manuf. Part # | Distributor | Distrib. Part # | Description |
|------|----------|---|-------------------|---------------------------|-------------|---------------------|---|
| 1 | 20 | C1, C2, C6, C7, C8, C10, C15, C16, C17, C18, C19, C20, C21, C23, C31, C32, C33, C34, C35, C36 | Kemet | C0603C104K4RACTU | Digi-Key | 399-1096-1-ND | 0.1uF ceramic capacitor, 16V, X7R, 0603 |
| 2 | 5 | C3, C22, C24, C27, C37 | TDK | C1608X7R1C105K | Digi-Key | 445-1604-1-ND | 1.0uF ceramic capacitor, 16V, X7R, 0603 |
| 3 | 6 | C4, C5, C14, C25, C26, C28 | Kemet | T491A106M016AS | Digi-Key | 399-3687-1-ND | 10uF capacitor, 20%, 16V, tantalum, size A |
| 4 | 2 | C9, C29 | TDK | C1608X7R1H471K | Digi-Key | 445-1307-1-ND | 470pF ceramic capacitor, 50V, X7R, 0603 |
| 5 | 2 | C11, C30 | TDK | C1608X7R1H103K | Digi-Key | 445-1311-1-ND | 10000pF ceramic capacitor, 50V, X7R, 0603 |
| 6 | 1 | C12 | TDK | C1608X7R1H102K | Digi-Key | 445-1308-1-ND | 1000pF ceramic capacitor, 50V, X7R, 0603 |
| 7 | 2 | C13, C38 | Kemet | C0603C224K4RACTU | Digi-Key | 399-5619-1-ND | 0.22uF ceramic capacitor, 16V, X7R, 0603 |
| 8 | 1 | C39 | Murata | GRM188R71H473KA61D | Digi-Key | 490-3287-1-ND | 0.047uF ceramic capacitor, 50V, X7R, 0603 |
| 9 | 1 | D1 | Kingbright | APB3025ESGC-F01 | Mouser | 604-APB3025ESGC-F01 | Red/Green Bi-Color LED, 1201W SMT |
| 10 | 1 | J1 | Molex | 22-28-4060 | Digi-Key | WM6406-ND | Header, Single row, Vertical, 6-pin, 0.1" P |
| 11 | 1 | J2 | CUI | SJ-3523-SMT | Digi-Key | CP-3523SJCT-ND | Connector, Audio Jack, 3.5mm, Stereo, SMD |
| 12 | 3 | L1, L2, L3 | Murata | BLM41PF800SN1L | Digi-Key | 490-1059-1-ND | Ferrite Chip, 80R @ 100MHz, 1A, 1806 |
| 13 | 1 | L4 | TDK | MLZ2012A3R3W | Digi-Key | 445-6394-1-ND | Inductor, 3.3uH, 340mR, 200mA, 0805 |
| 14 | 2 | R1, R9 | Any | Any | Digi-Key | P200KGCT-ND | 200k, 5%, 1/10W, 0603 |
| 15 | 4 | R2, R3, R4, R5 | Any | Any | Digi-Key | P4.7KGCT-ND | 4.7k, 5%, 1/10W, 0603 |
| 16 | 1 | R6 | Any | Any | Digi-Key | P10KGCT-ND | 10k, 5%, 1/10W, 0603 |
| 17 | 1 | R7 | Any | Any | Digi-Key | P270GCT-ND | 270 ohm, 5%, 1/10W, 0603 |
| 18 | 1 | R8 | Any | Any | Digi-Key | P470GCT-ND | 470 ohm, 5%, 1/10W, 0603 |
| 19 | 2 | R10, R19 | Any | Any | Digi-Key | P47KGCT-ND | 47k, 5%, 1/10W, 0603 |
| 20 | 1 | R11 | Any | Any | Digi-Key | P22KGCT-ND | 22k, 5%, 1/10W, 0603 |
| 21 | 2 | R12, R16 | Any | Any | Digi-Key | P51KGCT-ND | 51k, 5%, 1/10W, 0603 |
| 22 | 1 | R13 | Any | Any | Digi-Key | P1.5KGCT-ND | 1.5k, 5%, 1/10W, 0603 |
| 23 | 1 | R14 | Any | Any | Digi-Key | P15KGCT-ND | 15k, 5%, 1/10W, 0603 |
| 24 | 1 | R15 | Any | Any | Digi-Key | P2.2KGCT-ND | 2.2k, 5%, 1/10W, 0603 |
| 25 | 1 | R17 | Any | Any | Digi-Key | P220KHCT-ND | 220k, 1%, 1/10W, 0603 |
| 26 | 1 | R18 | Any | Any | Digi-Key | P100KHCT-ND | 100k, 1%, 1/10W, 0603 |
| 27 | 1 | R20 | Any | Any | Digi-Key | P10GCT-ND | 10 ohm, 5%, 1/10W, 0603 |
| 28 | 1 | U1 | Freescale | MCF51QE128CLH | Future | N/A | Microcontroller, Coldfire, TQFP-64 |
| 29 | 1 | U2 | Texas Instruments | PCA9306DCTR | Digi-Key | 296-18509-1-ND | Voltage-Level Translator, SM8 |
| 30 | 1 | U3 | Micrel | MIC5205-3.3YM5 | Digi-Key | 576-1259-1-ND | Linear Regulator, LDO, 3.3V, 150mA, SOT23-5 |
| 31 | 1 | U4 | Micrel | MIC5205YM5 | Digi-Key | 576-1262-1-ND | Linear Regulator, LDO, Adjustable, 150mA, SOT23-5 |
| 32 | 1 | U5 | Epson | S1V30120F01A100 | Future | N/A | IC, Text-to-Speech Synthesizer, TQFP-64 |
| 33 | 1 | U6 | National | LM4864MM | Digi-Key | LM4864MMTR-ND | IC, Audio Amplifier, 300mW typical, MSOP-8 |
| 34 | 1 | Y1 | Epson | SG-3030JC 32.7680KB3:ROHS | Future | N/A | Oscillator, 32.768kHz, +/-23ppm, 1.5V-5.5V, SMD |
| 35 | 1 | PCB | e-Teknet | EMIC2 | N/A | N/A | PCB, Fabrication |