

ItsyBitsy M0 Synth / Sigma-6 Voice Module – Parts List

| Description | Designator(s) | Qty |
|---|----------------------|-----|
| Circuit board (bare PCB) – see website | | 1 |
| Enclosure, plastic, 130 x 55 x 40 mm (min.) <i>or...</i> Eurorack panel, 128.5 x 50.5 mm (3U x 10HP) | | 1 |
| MCU module, Adafruit 'ItsyBitsy M0 Express' <i>or...</i> RobotDyn 'SAMD21 M0-Mini' (see website) | A1 | 1 |
| OLED Display, 1.3 inch, IIC, SH1106, 4-pin (pinout: 1=VDD, 2=GND, 3=SCL, 4=SDA) | | 1 |
| PCB strip header, 14-way SIL 0.1", female ccts | (A1 socket) | 2 |
| PCB strip header, 2-way SIL 0.1", female ccts | (A1 socket) | 1 |
| PCB strip header, 4-way SIL, 0.1", female ccts (optional) | P3 (OLED) | (1) |
| PCB pin header, 5-way SIL, 0.1" (with plug) | P5 (MIDI IN) | 1 |
| PCB pin header, 2-way SIL, 0.1" (with plug) | JP1, P1, P6 | 3 |
| PCB pin header, 6-way SIL, 0.1" (with plug) | P7 (optional) | (1) |
| DIP-switch, 4-way, DIP-8 | S1, S2, S3, S4 | 1 |
| Jack-socket, 3.5mm TS mono, PJ301F (alt. PJ301M) | J1, J2, ... J6 | 6 |
| IC socket, DIL-8 | (U1, U2, ...U5, V1) | 6 |
| Tact push-button switch, 6x6mm, 11mm shaft | buttons 'A' and 'B' | 2 |
| Socket, DIN, 5-pin 180°, panel mount (optional) | MIDI-IN (off-board) | (1) |
| IC, D/A converter, SPI, MCP4921, DIP-8 | U1 | 1 |
| IC, dual op-amp, LM2904 (alt. LM358), DIP-8 | U2, U3 | 2 |
| IC, timer/switch, NE555 (alt. LM555), DIP-8 | U4 | 1 |
| IC, EEPROM (1kB), 24LC08B, DIP-8 (optional) | U5 | (1) |
| IC, opto-coupler, 6N138, DIP-8 (optional) | V1 | (1) |
| Potentiometer, rotary, PCB mount B-10k (linear) | RV1 (data entry pot) | 1 |
| Diode, 1N914 (1N4148), small-signal | D1, D2 | 2 |
| Capacitor, Electrolytic, 22µF 16V | C2 | 1 |
| Capacitor, Polymer, 10nF 50V (prefer MKT) | C3 | 1 |
| Capacitor, Monolithic ceramic, 100nF (.1 µF) 50V | C1, C4 | 2 |
| Resistor, 220, 1/8W ~ ¼W, 1% (2%) metal film | R2 | 1 |
| Resistor, 1k0, 1/8W ~ ¼W, 1% (2%) metal film | R1 | 1 |
| Resistor, 2k2, 1/8W ~ ¼W, 1% (2%) metal film | R3, R4, R6, R7, R16 | 5 |
| Resistor, 10k, 1/8W ~ ¼W, 1% (2%) metal film | R5, R17 | 2 |
| Resistor, 18k, 1/8W ~ ¼W, 1% (2%) metal film | R8, R10, R12, R14 | 4 |
| Resistor, 33k, 1/8W ~ ¼W, 1% (2%) metal film | R9, R11, R13, R15 | 4 |
| Resistor, 47k, 1/8W ~ ¼W, 1% (2%) metal film | R5, R18 | 2 |
| Hookup wire, stranded 13 x 0.12mm, ass'd colours | | |
| Hardware – screws, nuts, washers, standoffs, etc | | |