Bill of Materials

Simple Sequencer

Project Name: Simple Sequencer

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Issue Date: 27/04/2021

Version: 1.0

Distribution: Public

Synopsis: Bill of materials for Simple Synthesizer, including electronic and mechanical parts and accessories.

Version history:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Version #** | **Implemented**  **By** | **Revision**  **Date** | **Approved**  **By** | **Approval**  **Date** | **Reason** |
| 0.1 | TN, JV | 26/04/2021 |  |  | Initial version |
| 1.0 | TN, JV | 27/04/2021 | JV | 27/04/2021 | First public version |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Electronic components

|  |  |  |  |
| --- | --- | --- | --- |
| **Component** | **Designators** | **Amount** | **Notes** |
| Arduino Nano A000005 | U1 | 1 | Arduino.cc |
| TL082CP/NOPB | U3-U4 | 2 | Texas Instruments |
| 10kΩ linear potentiometer |  | 17 | Bourns P160KNP-0QC20B10K |
| 20kΩ stereo potentiometer |  | 1 | Bourns PDB182-K420K-203B |
| SPDT switch |  | 19 | E-switch 100SP1T1B1M2QEH |
| DPDT switch |  | 1 | E-switch 100DP1T1B1M1QEH |
| Push button |  | 2 | E-switch 800SP9B5M1QEH |
| 3.5mm jack |  | 8 | Schurter 4832.2211 |
| 10uF/25V | C1-C2,C5-C6,C14-C16 | 7 | Tantalum capacitor, size D |
| 100nF/50V | C3-C4,C8-C13 | 8 | Ceramic capacitor, 20%, 0805 |
| 10kΩ | R1, R3-R5,R21 | 5 | Resistor, 1%, 0805 |
| 1kΩ | R2, R6-R20,R27, R29-R30 | 19 | Resistor, 1%, 0805 |
| 10kΩ | R3-R5,R21 | 4 | Resistor, 1%, 0805 |
| 27kΩ | R22,R24 | 2 | Resistor, 1%, 0805 |
| 47kΩ | R23,R25 | 2 | Resistor, 1%, 0805 |
| 100Ω | R26,R31-R32 | 3 | Resistor, 1%, 0805 |
| ICL7662EBA+ | U5 | 1 | Maxim Integrated |
| 74HC4051D | U11,U36 | 2 | NXP |
| SMA6J15CA-TR | D2 | 1 | STMicroelectronics |
| MMBD914 | D3-D26 | 24 | Diodes, Inc. |
| 250mA 1206 fuse | F1 | 1 | Littelfuse 0466.250NR |
| IDC10 header, boxed | J67 | 1 | Amphenol 68712-001 |
| 2pin header | J3‑J9,J57,J57,J31,J34, J37,J40,J43,J46,J49, J52,J54,J55,J61,J65, J66,J68 | 23 | Harwin M20-9990246 |
| 3pin header | J11,J15-J30,J32,J33,  J35,J36,J38,J39,J41,  J42,J44,J45,J47,J48,  J50,J51,J53,J58‑J60,  J62‑J64,J70,J71 | 40 | Harwin M20-9990346 |
| 8pin header | J1,J2,J10,J12-J14,J69 | 7 | Harwin M20-9990845 |
| Header socket, 2pin |  | 23 | Sullins PPTC021LFBN-RC |
| Header socket, 3pin |  | 40 | Sullins PPPC031LFBN-RC |
| Header socket, 15pin |  | 2 | Sullins PPTC151LFBN-RC |
| Power jack |  | 1 | MCM 27-4360 |
| 3mm blue LED |  | 12 | Dialight 5219831F |
| PCB |  | 1 |  |

Mechanical components

|  |  |  |
| --- | --- | --- |
| Component | Amount | Notes |
| Front panel | 1 |  |
| Bottom part | 1 |  |
| Socket screw, M3 x 30 | 4 | Bright zinc-plated steel |
| Socket screw, M3 x 16 | 4 | Bright zinc-plated steel |
| Nut, M3 | 4 | Bright zinc-plated steel |
| Knob for potentiometer | 18 | For ¼” knurl |
| Spacer, 25mm | 4 | Inner diameter 3.5mm |
| Rubber feet, self-adhesive | 4 | For example, d=12mm pads |

Accessories

|  |  |  |
| --- | --- | --- |
| Component | Amount | Notes |
| 12V power supply | 1 | For example, XP Power VEL05US120-EU-JA |
| 3.5mm mono patch cable | 6 | 300…400mm length |
| Eurorack power cable | 1 | 150…300mm length |
| Mini-B USB cable | 1 | 900…1200mm length |