## **Bill Of Materials for FOLDY - 1.1**

**Design Title** FOLDY - 1.1

**Author** 

**Document Number** 

Revision

2

Q2,Q4

**Design Created** Wednesday, June 7, 2023 **Design Last Modified** Wednesday, June 7, 2023

**Total Parts In Design** 91

| 0 Modules                  |  |              |                |   |  |  |  |
|----------------------------|--|--------------|----------------|---|--|--|--|
| Quantity                   | References                             | <u>Value</u> | <u>PCB</u>     | Notes   |  |  |  |
| Sub tota                   | le:                                    |              | <u>Package</u> |   |  |  |  |
| Sub-totals:  15 Capacitors |  |              |                |   |  |  |  |
|                            | References                             | Value        | PCB            | <u>Notes</u>  |  |  |  |
|                            |  |              | Package        |   |  |  |  |
| 6                          | C1,C4-C5,C7,C10-C11                    | 100pF        | CAP10          | C0G/NP0 MLCC/ Ceramic / Film                                |  |  |  |
| 4                          | C2-C3,C6,C8                            | 1200pF       | CAP10          | COG/NP0 MLCC/ Ceramic / Film                                |  |  |  |
| 1                          | C9                                     | 10nF         | CAP10          | COG/NP0 MLCC/ Ceramic / Film                                |  |  |  |
| 3                          | C12-C14                                | 22pF         | CAP10          | COG/NP0 MLCC/ Ceramic / Film                                |  |  |  |
| 1                          | C15                                    | 1nF          | CAP10          | C0G/NP0 MLCC/ Ceramic / Film                                |  |  |  |
| Sub-totals:  39 Resistors  |  |              |                |   |  |  |  |
|                            | References                             | <u>Value</u> | PCB            | <u>Notes</u>  |  |  |  |
| Quartity                   | <u>r Cicicioco</u>                     | <u>vaiuc</u> | Package        | NOTES   |  |  |  |
| 7                          | R1,R18,R20,R28-R31                     | 100K         | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| 6                          | R2,R14,R21,R23-R25                     | 20K          | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| 9                          | R3,R13,R16,R34-R35,R38-R39,<br>R41-R42 | 10K          | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| 4                          | R4-R5,R10-R11                          | 12K          | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| 1                          | R6                                     | 120K         | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| 2                          | R7,R32                                 | 100R         | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| 1                          | R8                                     | 300K         | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| 2                          | R9,R12                                 | 499K         | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| 1                          | R15                                    | 7.5K         | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| 1                          | R17                                    | 91K          | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| 4                          | R19,R22,R26-R27                        | 220R         | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| 1                          | R40                                    | 340R         | RES40          | 1% Resistor (100PPM / 50PPM Recommended)                    |  |  |  |
| Sub-totals:                |  |              |                |   |  |  |  |
| •                          | rated Circuits References              | <u>Value</u> | <u>PCB</u>     | Notes   |  |  |  |
| Qualitity                  | <u>Releielices</u>                     | <u>value</u> | Package        | Notes   |  |  |  |
| 2                          | U1-U2                                  | OPA2132U     | SO8            | Choose good op amps (OPA2132 / OPA2134 / OPA1656 / AD8034)  |  |  |  |
| 1                          | U3                                     | J2164        | SO16           | Sound Semiconductor SSI2164 (SSI Only)                      |  |  |  |
| 3                          | U4-U6                                  | OPA2134UA    | SO8            | Choose good op amps (OPA2132 / OPA2134 / OPA1656 / AD8034)  |  |  |  |
| 1                          | U7                                     | LM4040-5     | TO92           | 5V LM4040 (A, B, or C Type)                                 |  |  |  |
| 1                          | U8                                     | TLE2062      | SO8            | TLE2062 best here. Good voltage swing, good supply current. |  |  |  |
| Sub-totals:                |  |              |                |   |  |  |  |
| 4 Transistors              |  |              |                |   |  |  |  |
| _                          | <u>References</u>                      | <u>Value</u> | PCB<br>Package | <u>Notes</u>  |  |  |  |
| 2                          | Q1,Q3                                  | 2N3906       | TO92           | Any typical TO-92 PNP (EBC Pinout on PCB)                   |  |  |  |

2N3904

TO92

Any typical TO-92 NPN (EBC Pinout on PCB

| Sub-totals:      |                                |              |                              |   |  |  |  |
|------------------|--------------------------------|--------------|------------------------------|---|--|--|--|
| 2 Diodes         |                                |              |                              |   |  |  |  |
| <u>Quantity</u>  | References                     | <u>Value</u> | PCB<br>Package               | <u>Notes</u>                                    |  |  |  |
| 2                | D1-D2                          | 1N4733A      | DO41                         | Zener 5.1V                                      |  |  |  |
| Sub-totals:      |                                |              |                              |   |  |  |  |
| 23 Miscellaneous |                                |              |                              |   |  |  |  |
| <u>Quantity</u>  | References                     | <u>Value</u> | <u>PCB</u><br><u>Package</u> | <u>Notes</u>                                    |  |  |  |
| 14               | BP1-BP14                       | 100nF        | 0805                         | Decoupling / Bypass SMT 0805 Capacitors C0G/NP0 |  |  |  |
| 3                | DRYINJECT, FOLDLEVEL,<br>SHAPE | 100K         | CONN-<br>SIL3                | Panel Pots                                      |  |  |  |
| 2                | FB1-FB2                        | 0R           | RES40                        | Ferrite Beads Recommended                       |  |  |  |
| 1                | J1                             | SIL-156-04   | SIL-156-04                   | MTA-156 Friction Lock Power Header              |  |  |  |
| 2                | PF1-PF2                        | 10uF         | ELEC-<br>RAD13               | Power Filtering Electrolytic Capacitors         |  |  |  |
| 1                | VCA-DRYLOOP                    | SW-SPDT      | CONN-<br>SIL3                | SPDT Toggle Switch (NKK Recommended)            |  |  |  |
| Sub-totals:      |                                |              |                              |   |  |  |  |

Totals:

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