



|                                     |  |          |
|-------------------------------------|--|----------|
| Title                               |  |          |
| <b>USB Morse Keyboard Interface</b> |  |          |
| Size                                | Number   | Revision |
| Letter                              |  |          |
| Date:                               | 20-Apr-2019  | Sheet of |
| File:                               | C:\Users\User\Documents\lffsys\Morse HID\PCB\USB Morse HID.ddb |          |

PBSW  
PBSW.Sch

## USB Morse Keyboard (Morse HID) Interface Parts List

| QTY | Designator                              | Description                     | MPN                  | MFR          |
|-----|---|---------------------------------|----------------------|--------------|
| 1   | C1                                      | CAP, ELYTIC, 1000uF, 16V        | 108RSS016M           | CDE          |
| 1   | C11                                     | MLCC, 10uF, 25V, 1206           | TMJ316BB7106MLHT     | Taiyo Yuden  |
| 2   | C12, C13                                | MLCC, 0.01uF, 25V, 0603         | CC0603KRX7R8BB103    | Yageo        |
| 1   | C14                                     | MLCC, 0.02uF, 25V, 0805         | 885012207068         | Würth        |
| 9   | C2, C3, C4, C5, C15, C16, C17, C18, C21 | MLCC, 0.1uF, 25V, 0603          | CGA3E2X7R1E104K080AA | TDK          |
| 2   | C19, C20                                | CAP, ELYTIC, 100uF, 6.3V        | 107RSS6R3M           | CDE          |
| 5   | C6, C7, C8, C9, C10                     | MLCC, 1000pF, 25V, 0603         | CC0603KRX7R8BB102    | Yageo        |
| 3   | D1, D2, D3                              | LED, SMD, 0805, GRN             | LTST-C171GKT         | Lite-On      |
| 1   | D4                                      | DIO, TVS, DUAL, CC, SOT-23      | ESD3V3AP             | MCC          |
| 2   | J1, J3                                  | CON, SMD, STEREO, 1/8"          | SJ1-3513C-SMT-TR     | CUI          |
| 4   | J2, JR11, JR12, JR13                    | CON, MOLEX, 3PIN                | 22-23-2031           | Molex        |
| 4   | P2, PR11, PR12, PR13                    | HSG, MOLEX, 3PIN                | 22-01-3037           | Molex        |
| 12  | P2, PR11, PR12, PR13 (x3 ea)            | CNTCT, MOLEX, CRIMP             | 08-50-0114           | Molex        |
| 1   | M1                                      | EVB, TIVA, TM4C123GH6PM         | EK-TM4C123GXL        | TI           |
| 2   | M1A, M1B                                | HDR, 0.1", 2-ROW, 20POS         | 67997-410HLF         | Amphenol/FCI |
| 1   | P1                                      | CON, IDC-DIP, 16 POS            | D2516-6002-AR        | 3M           |
| 3   | Q1, Q2, Q3                              | TR, FET, NCH, SOT-23            | NDS355AN             | ON Semi      |
| ALT | Q1, Q2, Q3                              | TR, FET, NCH, SOT-23            | BSH103,215           | Nexperia     |
| 1   | R1                                      | RES, SMD, 0603, 1%, 10          | RC0603FR-0710RL      | Yageo        |
| 3   | R11, R12, R13                           | RES, VAR, 10K                   | 3310R-001-103L       | Bourns       |
| ALT | R11, R12, R13                           | RES, VAR, 5K                    | 3310R-001-502L       | Bourns       |
| 2   | R14, R15                                | RES, SMD, 0603, 1%, 49.9        | RC0603FR-0749R9L     | Yageo        |
| 2   | R16, R17                                | RES, SMD, 0603, 1%, 6.8K        | RC0603FR-076K8L      | Yageo        |
| 1   | R18                                     | RES, SMD, 0603, 1%, 1.30K       | RC0603FR-071K3L      | Yageo        |
| 4   | R19, R20, R21, R22                      | RES, SMD, 0603, 1%, 3.90K       | RC0603FR-073K9L      | Yageo        |
| 5   | R2, R3, R4, R5, R6                      | RES, SMD, 0603, 1%, 49.9K       | RC0603FR-0749K9L     | Yageo        |
| 8   | R23, R24, R25, R26, R27, R28, R29, R30  | RES, SMD, 0603, 1%, 390         | RC0603FR-07390RL     | Yageo        |
| 2   | R31, R32                                | RES, SMD, 1206, 1%, 33          | RC1206FR-0733RL      | Yageo        |
| 1   | R33                                     | RES, SMD, 0603, 1%, 0           | RC0603FR-070RL       | Yageo        |
| 4   | R34, R35, R36, R37                      | RES, SMD, 0603, 1%, 33          | RC0603FR-0733RL      | Yageo        |
| 4   | R7, R8, R9, R10                         | RES, SMD, 0603, 1%, 10K         | RC0603FR-0710KL      | Yageo        |
| 1   | U1                                      | IC, OP-AMP, DUAL, SO8           | TL062IDR             | TI           |
| 1   | U2                                      | IC, FILT, SWCAP, 4th ORDER, SO8 | TLC14ID              | TI           |
| 1   | U3                                      | IC, AMP, DUAL, 105mW, SO8       | LM4808MX/NOPB        | TI           |