# BANDMASTER

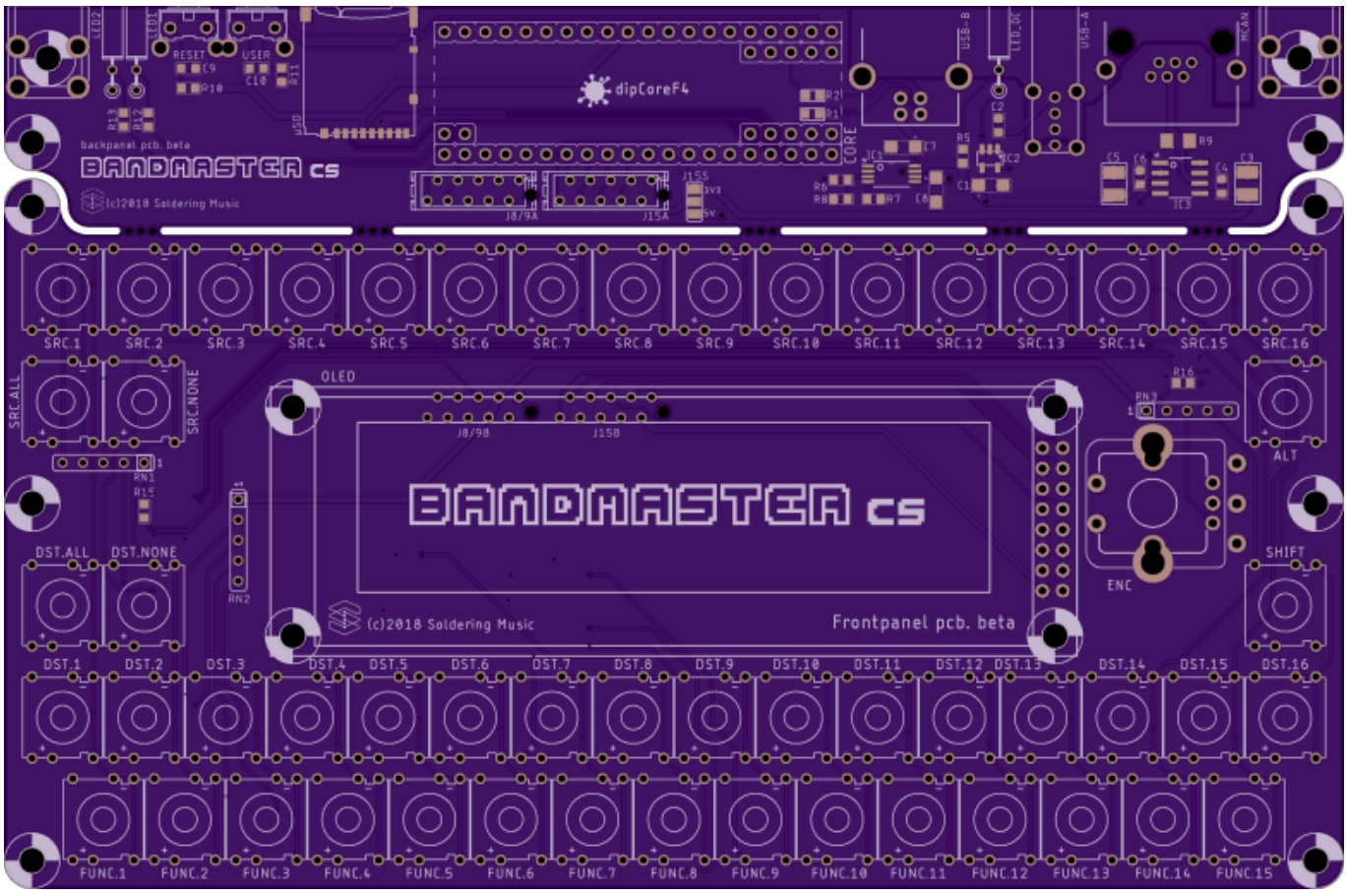
## MIDI Routing System and Control Surface.

#### Scalable MIDI Routing application using the MCAN and the M16 Interface...

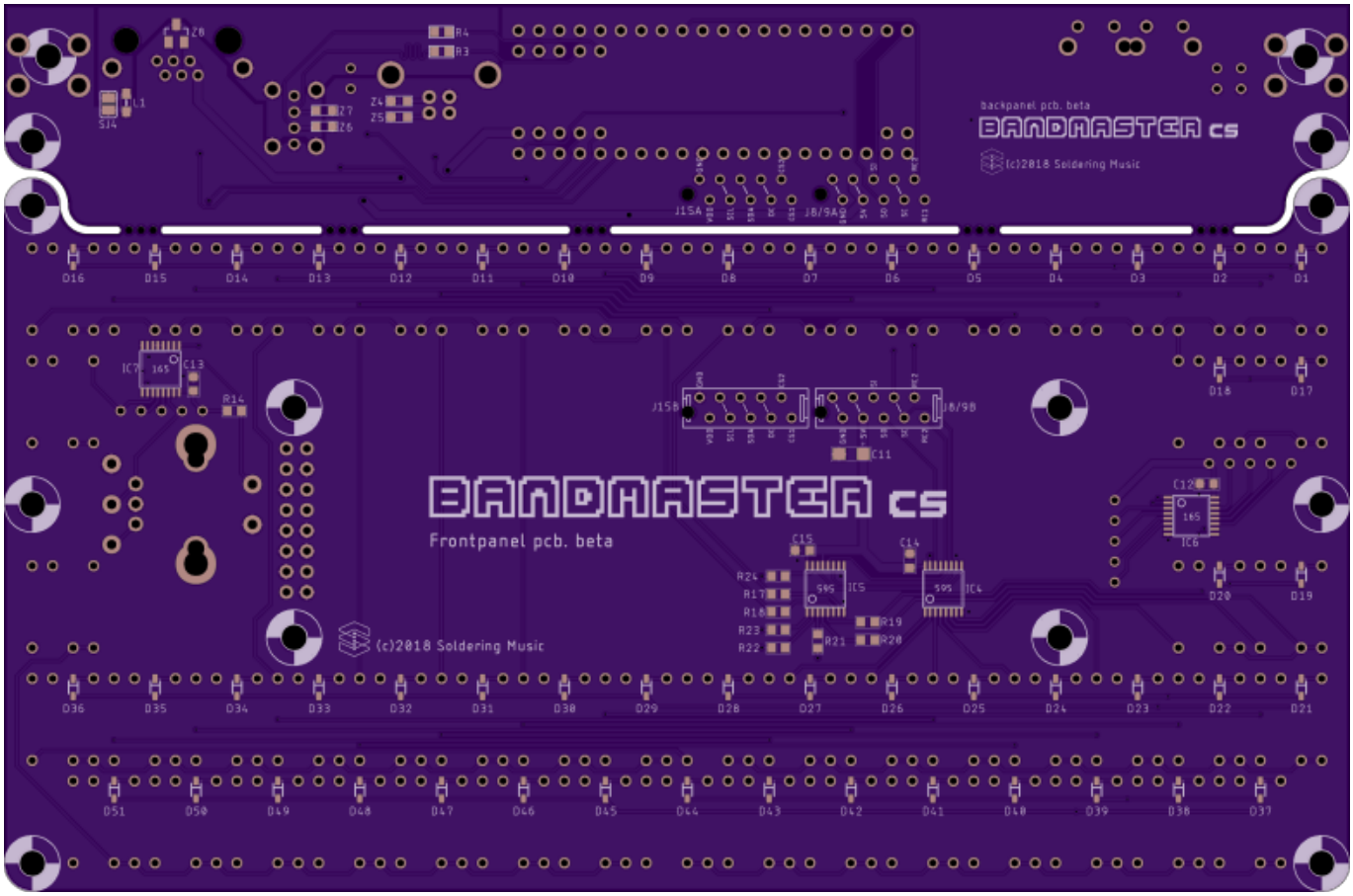
### Bandmaster CS

The Remote Control.

### Top




### Bottom




## BOM

Mouser BOM version 1. to complete

| Qty | Value | Package | Parts | Mouser | Reichelt | Conrad | Other | Notes |
|---|---|---|---|---|---|---|---|---|
| **Resistors** | | | | | | | | |
| 4 | 22R 5% | 0603 | R1, R2, R3, R4 | 667-ERJ-PA3J220V | | | | |
| 1 | 120R 1% | 1206 | R9 | 71-CRCW1206120RFKEAC | | | | |
| 8 | 220R 5% | 0603 | R17, R18, R19, R20, R21, R22, R23, R24 | 755-ESR03EZPJ221 | | | | |
| 1 | 470R 5% | 0603 | R7 | 755-ESR03EZPJ471 | | | | |
| 3 | 680R 5% | 0603 | R5, R12, R13 | 667-ERJ-PA3J681V | | | | Depends on Led |
| 5 | 10K 5% | 0603 | R6, R8, R14, R15, R16 | 755-ESR03EZPJ103 | | | | |
| 2 | 100K 5% | 0603 | R10, R11 | 755-ESR03EZPJ104 | | | | |
| **Resistors Network** | | | | | | | | |
| 3 | 10K 5% | DIL5 | RN1, RN2, RN3 | 858-L051S103LF | | | | |
| **Capacitors** | | | | | | | | |
| 9 | 100n | 0603 | C2, C4, C6, C9, C10, C12, C13, C14, C15 | 710-885012206071 | | | | |

| Qty | Value | Package | Parts | Mouser | Reichelt | Conrad | Other | Notes |
|---|---|---|---|---|---|---|---|---|
| **Resistors** | | | | | | | | |
| 2 | 1u | 1210 | C3, C5 | 710-885012209047 | | | | |
| 4 | 4,7u Tantalum | SMC_A(1206) | C1, C7, C8, C11 | 647-F931C475MAA | | | | |
| **ESD Suppressors / TVS Diodes** | | | | | | | | |
| 4 | CG0603MLC-05E | 0603 | Z1, Z2, Z3, Z4 | 652-CG0603MLC-05E | | | | |
| 1 | PESD1CAN | SOT23 | Z5 | 771-PESD1CAN-T/R | | | | |
| **Ferrite Bead** | | | | | | | | |
| 1 | BLM21 | 0805 | L1 | 81-BLM21P331SG | | | | |
| **Diodes** | | | | | | | | |
| 51 | 1N4148WS | SOD323-W | D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22, D23, D24, D25, D26, D27, D28, D29, D30, D31, D32, D33, D34, D35, D36, D37, D38, D39, D40, D41, D42, D43, D44, D45, D46, D47, D48, D49, D50, D51 | 512-1N4148WS | | | | Only if you use CAN without transceiver |
| **LEDs** | | | | | | | | |
| 3 | – | THT | LED1, LED2, LED_OC | | | | | 2x5mm rectangular THT |
| **OLED Screen** | | | | | | | | |
| 1 | ER-OLEDM032-1W | | OLED | ER-OLEDM032-1W | | | | buydisplay SSD1322 |
| **IC** | | | | | | | | |
| 1 | TPS2113APWR | SOT23-5L | IC1 | 595-TPS2113APWR | | | | Power Switch IC |
| 1 | STMPS2161STR | SOT23-5L | IC2 | 511-STMPS2161STR | | | | Power Switch IC |
| 1 | TCAN1042GV | SOIC8 | IC3 | 595-TCAN1042GVDRQ1 | | | | CAN tranceiver |
| 2 | 74HC595 | TSSOP-16 | IC4, IC5 | 595-SN74HC595PWR | | | | |
| 2 | 74HC165 | TSSOP-16 | IC6, IC7 | 595-SN74HC165PWR | | | | |
| **Switches and Encoder** | | | | | | | | |
| 2 | B3F-31xx | – | USER, RESET | 653-B3F-3122 | | | | |

| Qty | Value | Package | Parts | Mouser | Reichelt | Conrad | Other | Notes |
|---|---|---|---|---|---|---|---|---|
| **Resistors** | | | | | | | | |
| 53 | MEC_5GTH or MEC_3FTH | – | ALT, DST.1, DST.2, DST.3, DST.4, DST.5, DST.6, DST.7, DST.8, DST.9, DST.10, DST.11, DST.12, DST.13, DST.14, DST.15, DST.16, DST.ALL, DST.NONE, FUNC.1, FUNC.2, FUNC.3, FUNC.4, FUNC.5, FUNC.6, FUNC.7, FUNC.8, FUNC.9, FUNC.10, FUNC.11, FUNC.12, FUNC.13, FUNC.14, FUNC.15, SHIFT, SRC.1, SRC.2, SRC.3, SRC.4, SRC.5, SRC.6, SRC.7, SRC.8, SRC.9, SRC.10, SRC.11, SRC.12, SRC.13, SRC.14, SRC.15, SRC.16, SRC.ALL, SRC.NONE | 642-5GTH92061 or 642-3FTH9Q | | | | + 3mm leds for 3FTH |
| 1 | PEC12R | – | ENC | 652-PEC12R-4217F-S24 | | | | |
| **Connectors** | | | | | | | | |
| 1 | USB-B | THT | USB-B | 538-67068-8000 | | | | |
| 1 | USB-A | THT | USB-A | 538-48204-0001 | | | | |
| 1 | RJE0166201 | single RJ11 6p6c | MCAN | 523-RJE01-662-01 | | | | |

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|---|---|---|---|---|---|---|---|---|
| **Resistors** | | | | | | | | |
| 2 | micro-match 2×5 | Female | J8/9A, J15A | 571-12150790 or 571-1-2178710-0(value line) | | | | |
| 2 | micro-match 2×5 | IDC | J8/9B, J15B | 571-8-215570-0 | | | | Paddle board |
| 1 | DM3AT-SF-PEJM5 | Socket | micro-SD | 571-8-215079-4 | | | | with push-push |
| **Others** | | | | | | | | |
| 2 | Screw terminal | – | – | 534-7790 | | | | |

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toDo

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