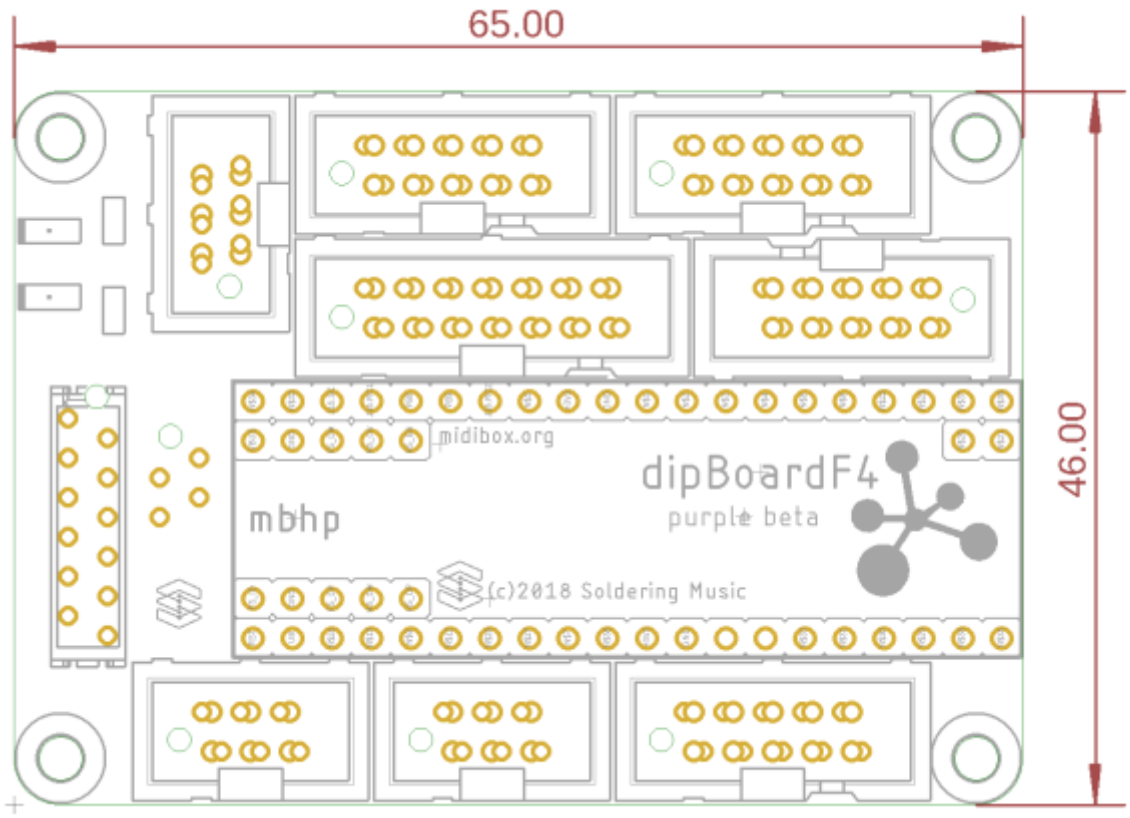
dipBoardF4

MIDIbox Hardware Platform extension for dipCoreF4.

Features

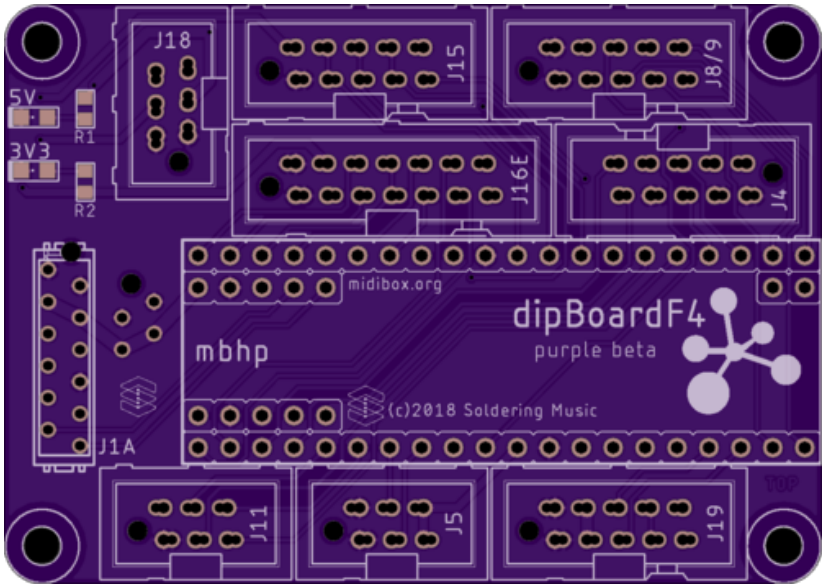
- Very small size 65x46mm(less than your credit card).
- Very low profile.
- Your application board can be stacked on bottom with 'Micro-match' connectors.
- The dipCoreF4 can be installed on the two side.
- Provides all the most important features and ports for regular mbhp.

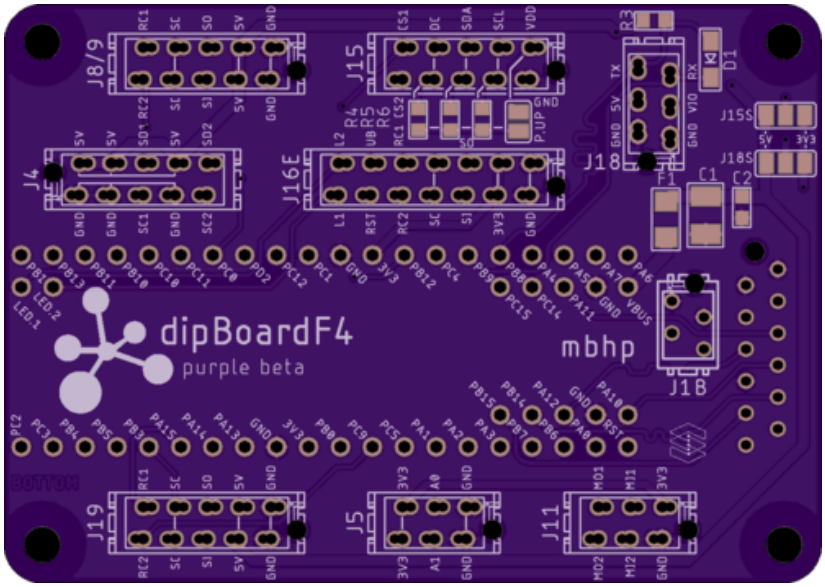
Dimension



PCB

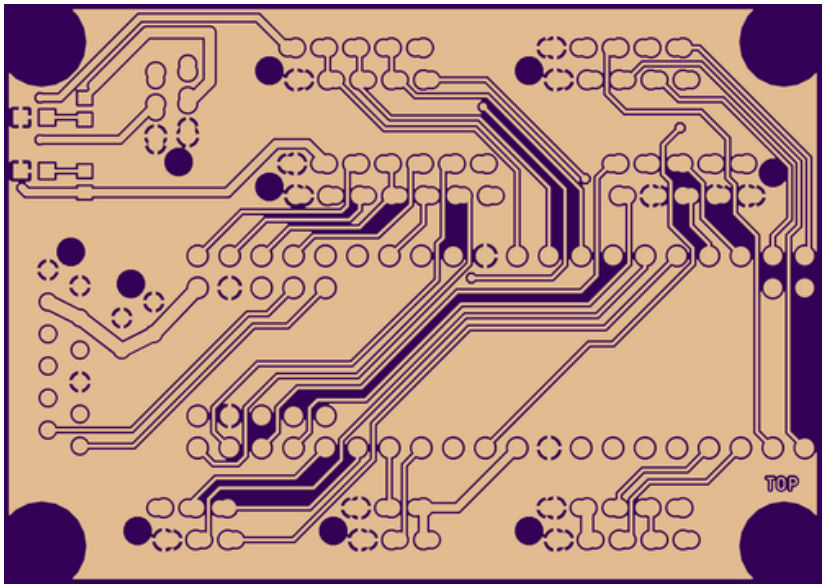
2 layers PCB design.
Fits 2 layer mostly common design rules.



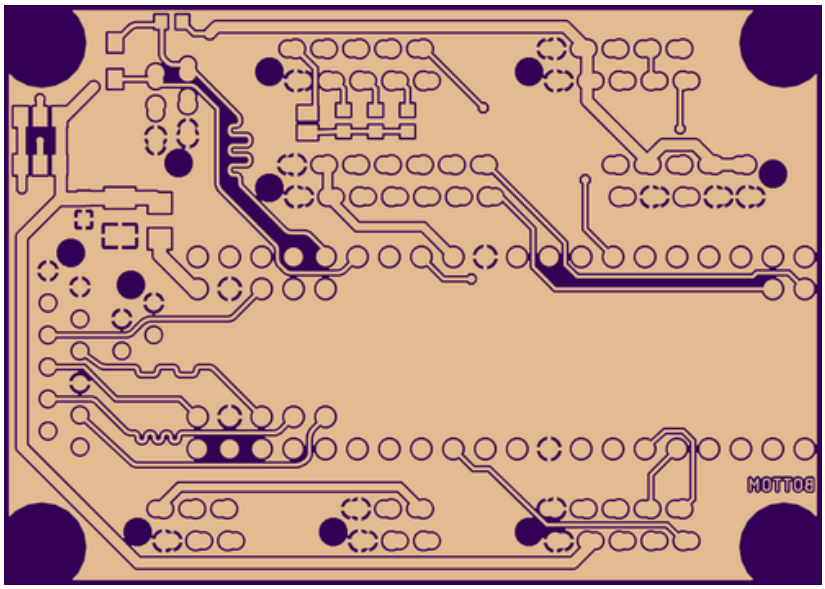


- min. drill 10mil
- min. width 6mil

Top copper



Bottom



BOM

version 1. Mouser BOM:toDo

Qty	Value	Package	Parts	Mouser	Reichelt	Conrad	LCSC	Notes
Resistors								
2	680R 5%	0603	R1, R2	667-ERJ-PA3J681V			C103784	Depends on Leds
4	1K 5%	0603	R3, R4, R5, R6	755-ESR03EZPJ102			C253329	R3 if you use CAN without transceiver
PTC fuses, resettable thermistors								
1	1206L150THWR	1206	F1	576-1206L150THWR			C261956	
Capacitors								
1	100n	0603	C2	80-C0603C104Z3V			C1688	
1	47u Tantalum	SMC_B(1210)	C1	74-TMCMB1C476MTRF				
Diode								
1	1N4148WS	SOD323-W	D1	512-1N4148WS				Only if you use CAN without transceiver
LEDs								
2	–	0805	5V, 3V3	755-SML-H12U8TT86C				
dipCoreF4 socket								
2	1×20	low profile female		517-929870-01-20-RA				for pads 1 to 40
2	1×5	low profile female		517-929870-01-05-RA				for pads 41 to 50
1	1×2	low profile female		517-929870-01-02-RA				for pads 51 to 52
Connector								

Qty	Value	Package	Parts	Mouser	Reichelt	Conrad	LCSC	Notes
Resistors								
1	micro-match 2×6	Female	J1A	571-8-215079-2 or 571-1-2178710-2 (value line)				Place on top
3 options available for PORTs connectors(depends on you app.)								
Option 1 - Regular Shrouded Headers								
3	2×3	Male	J5, J11, J18	710-61200621621				Place on top
4	2×5	Male	J4, J8/9, J15, J19	710-61201021621				Place on top
1	2×7	Male	J16E	710-61201421621				Place on top
Option 2 - Stacking Micro-Match Connector								
1	2×2	Female	J1B	571-7-215079-4 or 571-2178710-4 (value line)				Place on bottom
3	2×3	Female	J5, J11, J18	571-215079-6 or 571-2178710-6 (value line)				Place on bottom
4	2×5	Female	J4, J8/9, J15, J19	571-12150790 or 571-1-2178710-0(value line)				Place on bottom
1	2×7	Female	J16E	571-8-215079-4 or 571-1-2178710-4 (value line)				Place on bottom
Option 3 - Micro-Match Paddle Board for low profile connector								
3	2×3	IDC	J5, J11, J18	571-7-215570-6				Place on top
4	2×5	IDC	J4, J8/9, J15, J19	571-1-215570-0				Place on top
1	2×7	IDC	J16E	571-8-215570-4				Place on top

Ports and features.

toDo

Compatible/stack-able boards options

- All uCapps mbhp modules are compatibles.
- USB, SD-Card, External Power and MCAN modules are available.
- M16 Interface, stack-able, to connect on a SPI port, provides 16 MIDI IO and 48 GPIO 😎

For any questions, informations or observations do not hesitate to contact me (Forum). Antichambre.