



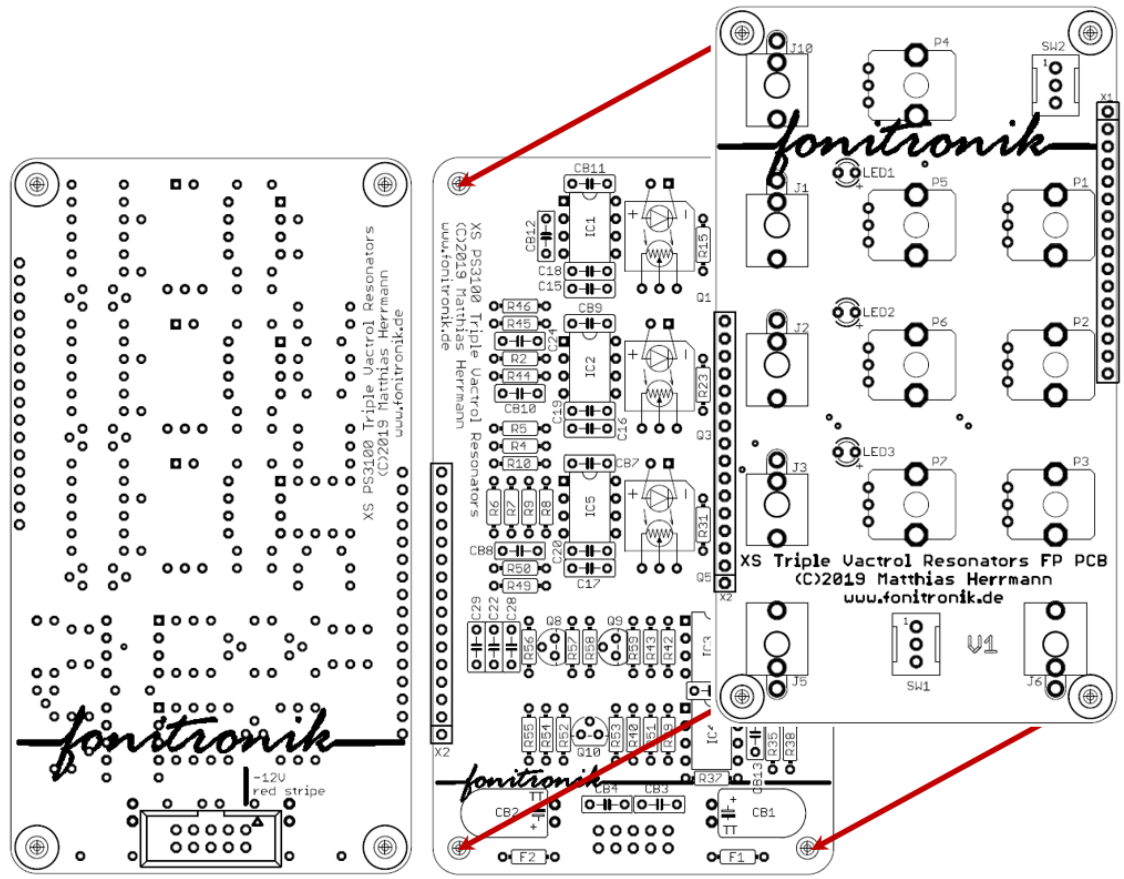
# Layout/Design – 12HP Edition

## General mounting instructions

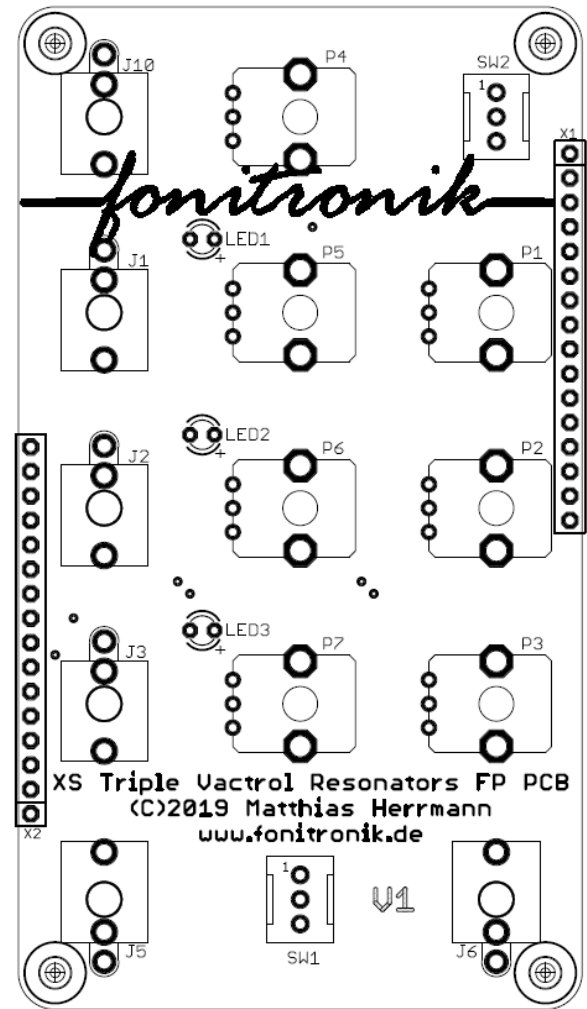
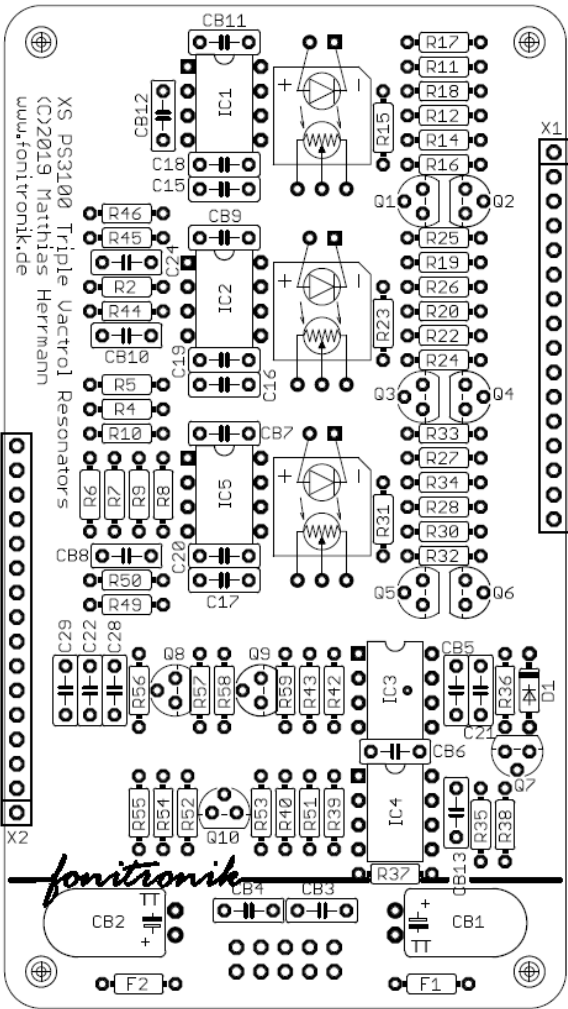
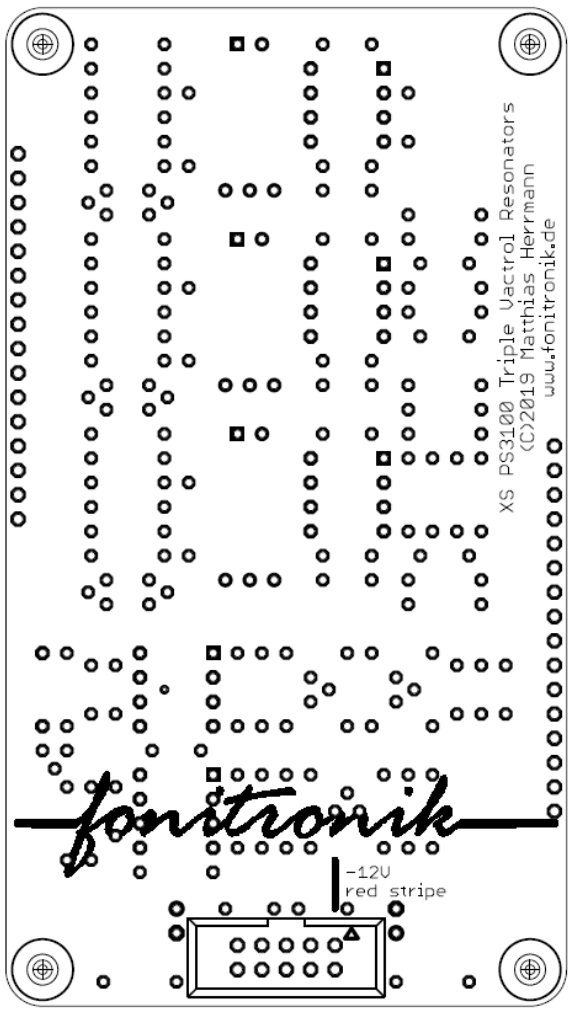
This project uses two PCBs, one board with the actual circuitry and an additional adapter PCB carrying the front panel components. The adapter PCB is used to mount the PCBs to the front panel.

The PCBs are connected using two 1x16 headers/receptables with 2,54mm pitch (.1in). For stability use four threaded distance sleeves (M3).

Look out for something like this:



# Overlays – 12HP Edition

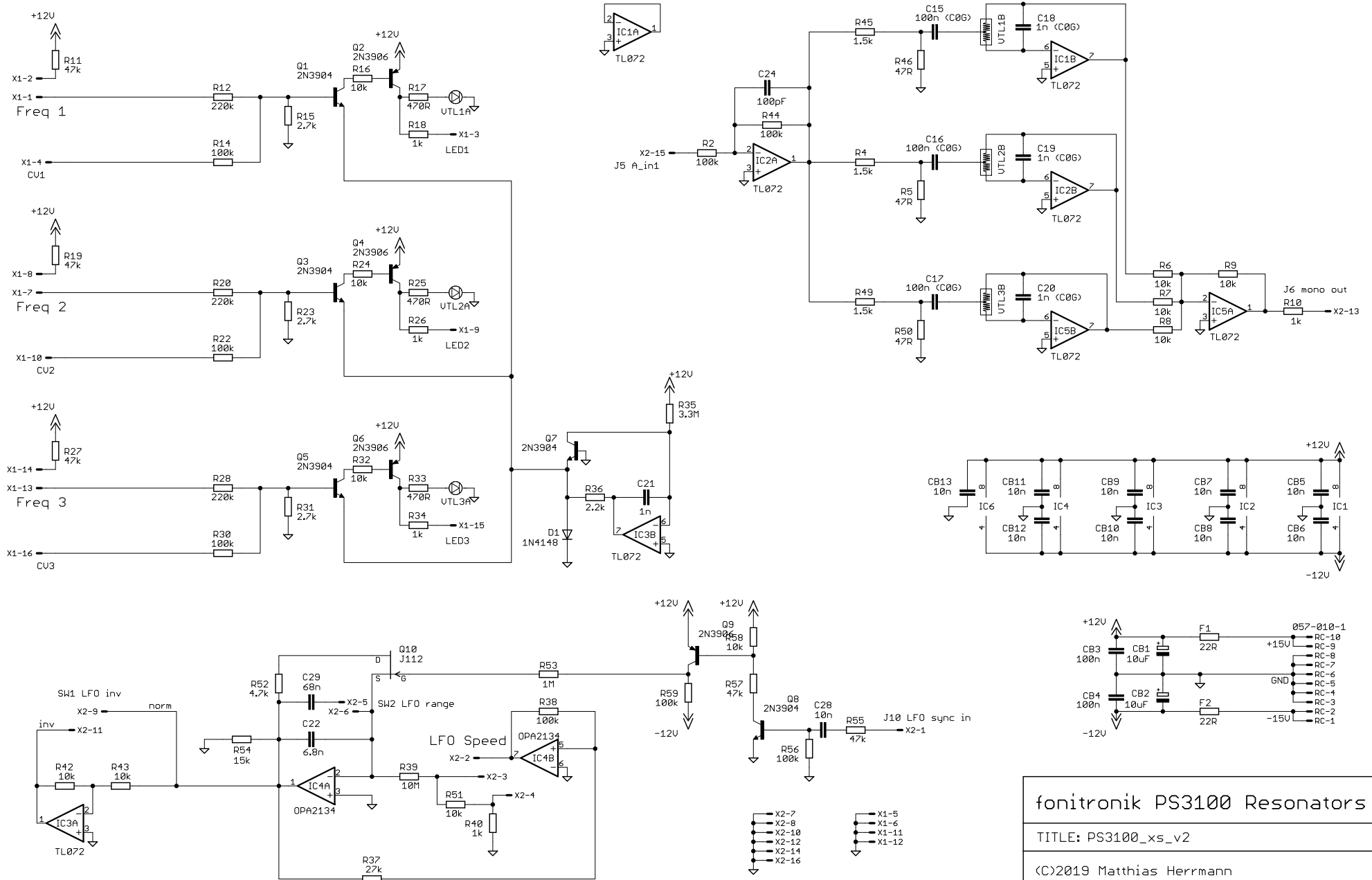


## BOM – 12HP Edition

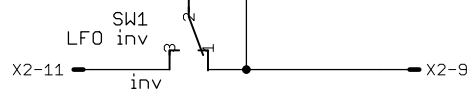
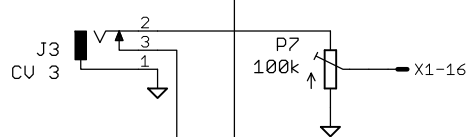
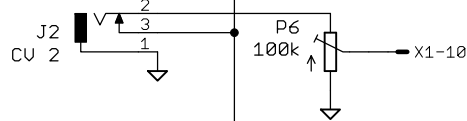
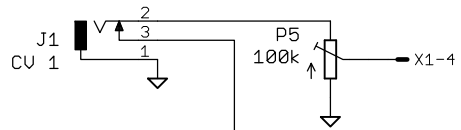
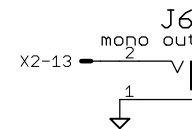
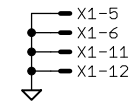
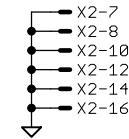
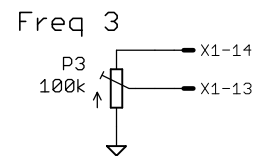
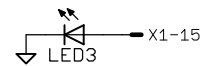
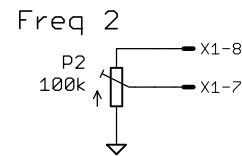
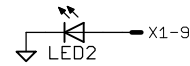
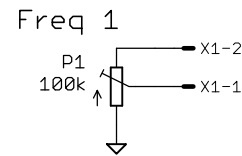
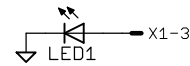
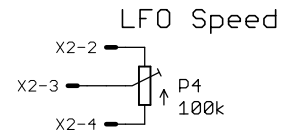
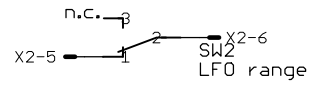
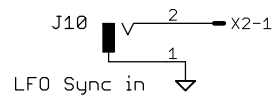
Qty	Value	Parts	Description
<b>MAIN PCB</b>			
Resistors			
2	10R	F1, F2	or ferrite beads
3	47R	R5, R46, R50	
3	470R	R17, R25, R33	
5	1k	R10, R18, R26, R34, R40	
3	1.5k	R4, R45, R49	
1	2.2k	R36	
3	2.7k	R15, R23, R31	
1	4.7k	R52	
11	10k	R6, R7, R8, R9, R16, R24, R32, R42, R43, R51, R58	
1	15k	R54	
1	27k	R37	
5	47k	R11, R19, R27, R55, R57	
8	100k	R2, R14, R22, R30, R38, R44, R56, R59	
3	220k	R12, R20, R28	
1	1M	R53	
1	3.3M	R35	
1	10M	R39	
Capacitors			
1	100pF	C24	
1	1n	C21	
3	1n (COG)	C18, C19, C20	or mylar
1	6.8n	C22	
1	68n	C29	
1	10n (film)	C28	
9	10n	CB5, CB6, CB7, CB8, CB9, CB10, CB11, CB12, CB13	
2	100n	CB3, CB4	
3	100n (film)	C15, C16, C17	or mylar
2	10uF, 35V	CB1, CB2	

Qty	Value	Parts	Description
<b>MAIN PCB</b>			
Semi's			
1	1N4148	D1	
5	2N3904	Q1, Q3, Q5, Q7, Q8	
4	2N3906	Q2, Q4, Q6, Q9	
1	J112	Q10	or J111
4	TL072	IC1, IC2, IC3, IC5	or compatible
1	OPA2134	IC4	
3	VTL5C3/2	VTL1, VTL2, VTL3	Dual Vactrol
Connectors			
1	Header 2x5	RC	Euro Powerheader
2	Header 2x10	X1, X2	female
<b>ADAPTER PCB</b>			
2	Header 1x16	X1, X2	male
6	PJ398SM sockets	J1, J2, J3, J5, J6, J10	Thonkiconn
7	100k (lin)	Alpha 9mm pot (vertical)	
3	LED	2mA low current (YMMV)	See table below
2	SPDT Switch	on-on (PCB terminals)	Sub-Mini
LEDs & Resistors			
Parts	LEDs	Value	
R18, R26, R34	2mA low current (5 mcd)	1k	
	20mA super bright (7800 mcd)	15k	
	20mA ultra bright (14000 mcd)	47k	

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fonitronik PS3100 Resonators

TITLE: PS3100\_xs-FP\_TH Interface PCB

Document Number:

REV:

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