

Sheet1

Nelson Pass F4 – Peter Daniels clone BOM		All resistors ¼ watt 1% metal film unless otherwise noted					23 June 07		
Subcircuit	Part, Schematic	PCB	Description	Quantity	2 Channels	Supplier	Part Number	USD	Subtotal
		Part number		per channel				Price	
Power supply	Power Transformer, 18V * 18 V @ 300 VA		Plitron 077014201		1	Plitron	077014201	75.60	75.60
	Rectifier, min 200 V, 35 Amps		On Semi ULT FAST 15A 600V TO220AC	4	8	Digikey	MUR1560GOS-ND	1.51	12.08
	R1 to R8, 0.47 3 watt	Not labeled	Wirewound resistor, 5%, 3 Watt	4	8	Digikey	PPC3W.47CT-ND	1.92	15.36
	R10 and R11	R2?, R4?	2.2K						
	C1 to C8, 15,000 uF @ 25 V	C1, C2, C3, C4	Panasonic, TSHA, 22,000 uF 35 V, 35mm 10mm, ECO-S1VA223EA	4	8	Digikey	P6671-ND	7.73	61.84
	Fuse, 2.5 slow, 3AG		Package of 5		1	Digikey	F2557-ND	3.92	3.92
	Fuse, holder		Panel Mount, HTB-2		1	Digikey	283-2711-ND	2.80	2.80
	Thermistor, CL60		GE Sensing		1	Digikey	KC006L-ND	2.23	2.23
F4 Amp	R1 and R2		1k	2	4				
	R3, R4		22.1 Ohm	2	4				
	R5		1k	1	2				
	R6, R7		10K	2	4				
	R8, R9		10K	2	4				
	R10, R11, R12, R13, R14, R15		100 Ohm	6	12				
	R16, R17, R18, R19, R20, R21		0.47 Ohm, 1%, 5 watt, Mills non-inductive wirewound	6	12	Percy Audio	MRA-5-0.47	1.85	22.20
	R22		750 Ohm	1	2				
	R23		10 K	1	2				
	R25, R24		1k	2	4				
	C1, C2, C3, C4		220 uF 63 V, Panasonic FC, 12.5mm, 5mm, EEU-FC1J221S	4	8	Digikey	P10347-ND	0.90	7.20
		C5, C6	1800 uF 35 V, Panasonic FC, 12.5 Dia, 5mm lead spacing, EEU-FC1V182L	2	4	Digikey	P11244-ND	2.29	9.16
	P1, Potentiometer		5K, Cermet, Bourns 12 turn, Top, 3266W-1-502LF	1	2	Digikey	3266W-502LF-ND	3.58	7.16
	P2, Potentiometer		500 Ohm, Cermet, Bourns 12 turn, Top, 3266W-1-501LF	1	2	Digikey	3266W-501LF-ND	3.58	7.16
	Q1		2SK370 or 2SK170	1	2	MCM	2SK170	0.89	1.78
	Q2		2SJ108 or 2SJ74	1	2	MCM	2SJ74	1.24	2.48
	Q3, Q4, Q5		IRFP240, MOSFET N-CH 200V 20A TO-247AC	3	6	Digikey	IRFP240PBF-ND	4.86	29.16

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	Q6, Q7, Q10		IRFP9240, MOSFET P-CH 200V 12A TO-247AC	3	6	Digikey	IRFP9240PBF-ND	5.10	30.60
	Q11		TL431, IC SHUNT REG ADJ PREC 0.5% TO-92	1	2	Digikey	ZTL431BCSCT-ND	0.90	1.80
	D1, D2		2N4736 (Should be 1N4736)	2	4	Digikey	1N4736A-TPCT-ND	0.10	0.40
	D3, D4		1N4148	2	4	MCM	1N4148	0.06	0.24
	LED, 1 ma		LED 3MM 645NM RD WTR CLR LOW CUR, 1 ma, 3 Millicandela	1	2	Digikey	516-1312-ND	0.60	1.20
	LED, Panel mount		Panel Mount Lenses for T-1 (3mm) LED	1	2	Digikey	L30021-ND	0.33	0.66
	Heat sink, 0.25 °C/watt		°0.25 C/watt (2.95" * 11" * 6"), type 9012	1	2	R-Theta	RT9012U07200	No price yet	
									295.03
	Matched Fets from Tarasque at DIYAudio (Q1, Q2, Q3, Q4, Q6, Q7, Q10)		Set for F4, 6x IRF240, 6x IRF9240, 2x TL431, 2x2SK170, 2xSJ74		1	Tarasque		35 Euro	
Other	Toggle switch for AC		Toggle switch, 17mm, 25A 125 V, Panel mount, solder lug		1	Digikey	360-1192-ND	6.98	6.98
	RCA, female, red								
	RCA, female, black								