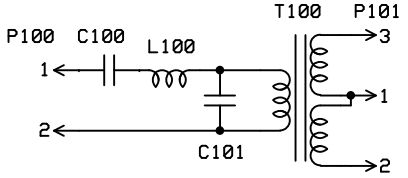
BPF module



Band specific values

Bands	C100	C101	L100	T100
160m	390pF	5600pF	18.7uH, T30-2(red) core 66T #30 AWG	1.4uH(primary), T30-2(red) core 18T #30 AWG on primary 9T #30 AWG on each bifilar secondary
80m/40m	560pF	680pF	1.6uH, T25-2(red) core 22T #30 AWG	1.2uH(primary), T25-2(red) core 18T #30 AWG on primary 9T #30 AWG on each bifilar secondary
30m/20m/17m	180pF	220pF	0.78uH, T25-6(yellow) core 17T #30 AWG	0.6uH(primary), T25-6(yellow) core 14T #30 AWG on primary 7T #30 AWG on each bifilar secondary
15m/12m/10m	82pF	330pF	0.53uH, T25-6(yellow) core 14T #30 AWG	0.13uH(primary), T25-6(yellow) core 7T #30 AWG on primary 4T #30 AWG on each bifilar secondary

Bill of Materials for Lite+USB Xatllv8.4

Resistors	Used where	Quantity
1.00k 1%	R1, R2, R19, R20	4
68.1 1%	R3, R4, R8	3
4.99k 1%	R5, R6, R7, R21, R22	5
1.00M 1%	R9	1
2.21k 1%	R10, R16	2
10.0k 1%	R11, R12, R15	3
10.0 1%	R13, R14, R17, R18	4
100 1/6W	R23, R24, R25	3

Capacitors	Used where	Quantity
4.7uF ceramic	C1, C3, C7, C14	4
0.1uF,SMT1206	C2, C11, C15, C21, C22, C23, C25, C26	8 (black marked strip)
0.01uF,SMT1206	C4, C5, C6, C8, C9, C12, C13, C16, C24	9
0.01uF ceramic	C10	1
0.047uF ceramic	C17, C18	2
220pF ceramic	C19, C20	2

Diodes and Transistors	Used where	Quantity
1N4003	D1	1
1N5227B	D2, D3	2
2N3906	Q1	1

ICs	Used where	Quantity
LM7805	U1 on top of board	1
LP2992AIM5-3.3v	U2 on bottom of board	1
ATTiny45-20PU & socket	U3 on top of board	1, (USB Synth code)
Si570, (LVDS or CMOS)	U4 on bottom of board	1
74AC74, SOIC14	U5 on bottom of board	1
FST3253, SOIC16	U6 on bottom of board	1
LT6231, SOIC8	U7 on bottom of board	1
FIN1002 (Not used with CMOS Si570.)	U8 on bottom of board	1

Connectors and cables	Used where	Quantity
2-pin socket	J1	1
3-pin socket	J2	1
USB cable, 3 foot long		1

Circuit board	Quantity
Lite+USB Xtall v8.4	1

Hardware	Quantity
4-40 3/8 inch machine screw	5
4-40 hex nut	5
#4 star lock wahser	1
#4 1/8 inch nylon spacer	4
#4 nylon washer	4

Bill of Materials for each BPF module

Capacitors	Used where	Quantity
ceramic capacitor	C100	1(see band specific value)
ceramic capacitor	C101	1(see band specific value)

Inductors/transformers		
Toroid inductor	L100	1(see band specific value)
Toroid transformer	T100	1(see band specific value)

Connectors	Used where	Quantity
2-pin header	P100	1
3-pin header	P101	1

Circuit board	Quantity
Lite+Xtall BPF board	1

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