



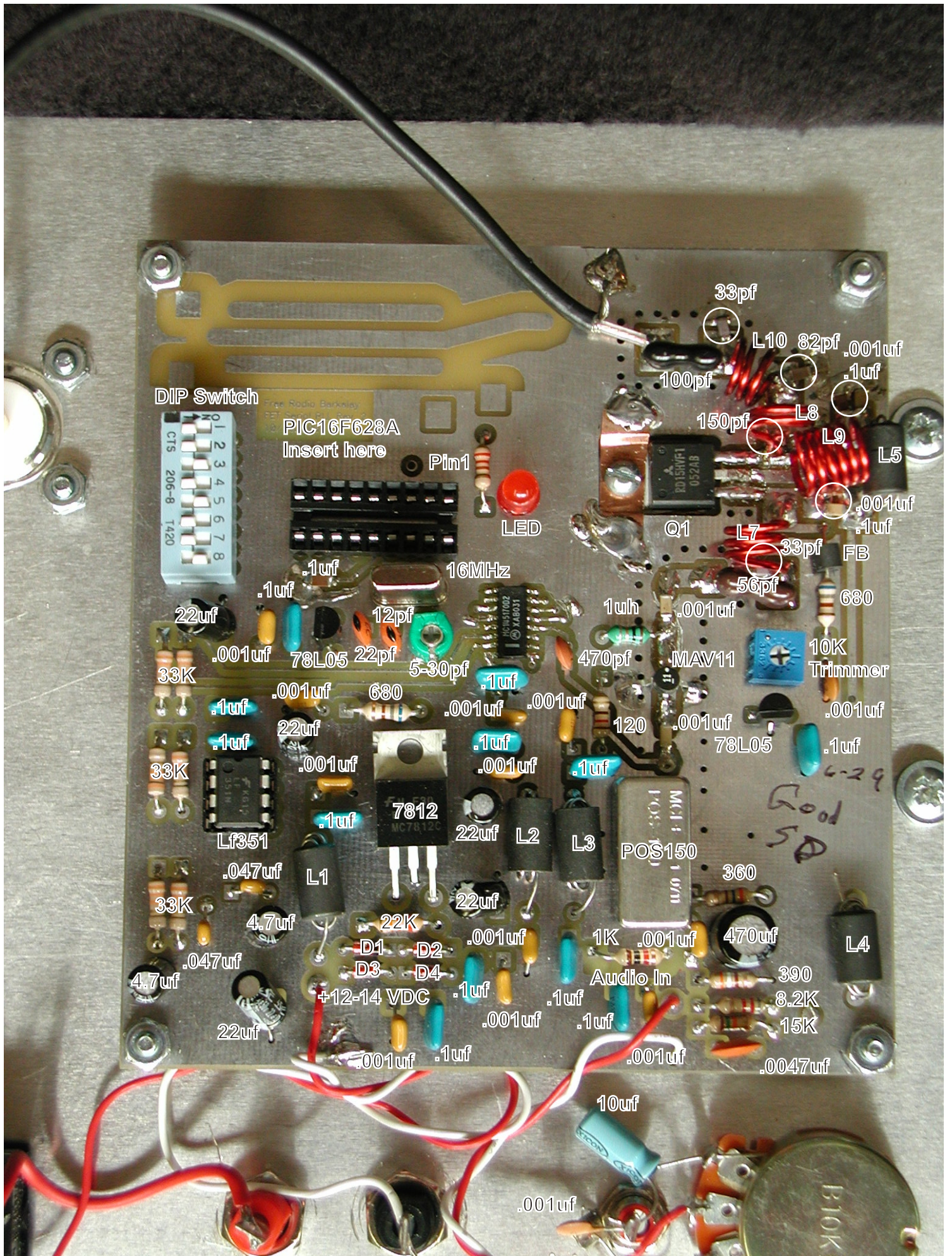
## Serial 10 Watt PLL Version 1 Parts List

Part number	Quantity	Description
C1, C5, C8, C10, C12, C20-21, C23, C29, C33, C50	11	.001uf capacitor, marked 102
C2, C6-7, C11, C18, C22, C24, C26, C28, C34	10	.1uf capacitor, marked 104
C25, C30, C38, C43, C45	5	.001uf capacitor, SMT1206
C31, C39, C42, C44	4	.1uf capacitor, SMT1206
C3	1	.0047 capacitor, marked 472
C4, C16, C19, C27, C35	5	22uf electrolytic capacitor
C9, C15	2	4.7uf electrolytic capacitor
C13	1	470uf electrolytic capacitor
C14, C17	2	.047uf capacitor, marked 473
C32	1	470pf capacitor, marked 471
C40	1	33pf capacitor, SMT 1206
C41	1	150pf capacitor, SMT 1206
C36	1	22pf capacitor, marked 22
C37	1	12pf capacitor, marked 12
C46	1	82pf capacitor, SMT 1206
C47	1	33pf capacitor, SMT1206
C48	1	5-30pf green trimmer capacitor
C49	1	100p mica capacitor
C50	1	56pf mica capacitor
D1-D4	4	1N914 diode
D5	1	LED diode
IC1	1	LF351/TL071 op amp
IC2	1	MC145170 serial PLL
IC3, IC8	2	78L05 voltage regulator
IC4	1	PIC16F628, programmed CPU
IC5	1	7812 voltage regulator
IC6	1	MAV11 amplifier
IC7	1	POS150 VCO, Mini-Circuits
L1-L5	5	Wide-band RF choke
L6	1	1uh choke, small brown or green body
L7	1	Coil 3 turns, #18, turns, .25 diameter
L8	1	Coil 2 turns, #18, turns, .25 diameter
L9	1	Coil 6 turns, #18, turns, .25 diameter
L10	1	Coil 3 turns, #18, turns, .25 diameter
Q1	1	RD15HFV1 Transistor
R1	1	Resistor, 15K - brown, green, orange
R2	1	Resistor, 8.2K - gray, red, red
R3	1	Resistor, 390 - orange, white, brown
R4	1	Resistor, 22K - red, red, orange
R5-6, R8-9, R12-13	6	Resistor, 33K - orange, orange, orange
R7	1	Resistor, 360 - orange, blue, brown
R10	1	Resistor, 120 - brown, red, brown
R11	1	Resistor, 680 - blue, gray, brown
R14	1	10K Trimmer
R15	1	Resistor, 220 - red, red, brown
R16	1	680 - blue, gray, brown
R18	1	Resistor, 1K - brown, black, red
X1	1	16 MHz crystal

### Other items:

1 - 8 pin IC socket, 1 - 18 pin IC socket, 1 - 8 position dip switch, 1 - ¼" #4 bolt, 5 #4 nuts, 4 - ½" #4 bolts, 4 ¼" spacers, 1 - 10" length of #24 twisted pair, 1 - 5" length of #24 twisted pair, 1 - 10" length of RG174 coaxial cable, 1 - packet of thermal compound, 1 - red banana socket, 1 - red banana plug, 1 - black banana socket, 1 - black banana plug, 1 - SO239 socket, D mount, 1 - 10K potentiometer with washer and nut, 1 - RCA socket





DIP Switch

01 2 3 4 5 6 7 8  
CTS 206-8 1420

PIC16F628A  
Insert here

Pin1

LED

33pf

L10 82pf .001uf

100pf

150pf

L8

L9

L5

.001uf

.1uf

Q1

L7

33pf

FB

56pf

680

16MHz

.1uf

22uf

.1uf

12pf

1uh

470pf

.001uf

56pf

680

33K

.001uf

78L05

22pf

5-30pf

120

MAV11

10K  
Trimmer

.001uf

33K

.1uf

22uf

.001uf

.001uf

.1uf

.001uf

78L05

.1uf

Lf351

7812

22uf

L2

L3

POS150

360

470uf

L4

33K

.047uf

L1

22uf

1K

.001uf

390

8.2K

15K

4.7uf

.047uf

D1

D2

D3

D4

Audio In

.1uf

.1uf

.001uf

.0047uf

+12-14 VDC

.001uf

.1uf

.001uf

.001uf

10uf

.001uf

6-29  
Good  
5D

B10K