

## YCCC 6 Band Receive Bandpass Filter

### Inductor Winding Table

revision - 29 August 2007

BAND	REF	CORE	COLOR	WIRE SIZE	WIRE LENGTH	TURNS	NOTES
160	L16	T50-2	Red	#24	22"	28	N8RA needed 31 turns close wound
160	L17	T50-2	Red	#24	22"	28	N8RA needed 31 turns close wound
160	L18	T50-2	Red	#24	22"	28	N8RA needed 31 turns close wound
80	L13	T50-2	Red	#22	19"	23	N8RA used 22 turns spread over 80% of core
80	L14	T50-2	Red	#22	19"	23	N8RA used 22 turns spread over 80% of core
80	L15	T50-2	Red	#22	19"	23	N8RA used 22 turns spread over 80% of core
40	L10	T50-6	Yellow	#20	16"	18	N8RA used 17 turns spread over 80% of core
40	L11	T50-6	Yellow	#20	16"	18	N8RA used 17 turns spread over 80% of core
40	L12	T50-6	Yellow	#20	16"	18	N8RA used 17 turns spread over 80% of core
20	L7	T50-10	Grey	#20	13"	15	N8RA used 13 turns spread over 75% of core
20	L8	T50-10	Grey	#20	13"	15	N8RA used 13 turns spread over 75% of core
20	L9	T50-10	Grey	#20	13"	15	N8RA used 13 turns spread over 75% of core
15	L4	T50-10	Grey	#18	12"	10	N8RA compressed the 10 turns over 60% of core
15	L5	T50-10	Grey	#18	12"	10	N8RA compressed the 10 turns over 60% of core
15	L6	T50-10	Grey	#18	12"	10	N8RA compressed the 10 turns over 60% of core
10	L1	T50-10	Grey	#20	7"	8	N8RA spread the 8 turns over 40% of core
10	L2	T50-10	Grey	#20	7"	8	N8RA spread the 8 turns over 40% of core
10	L3	T50-10	Grey	#20	7"	8	N8RA spread the 8 turns over 40% of core

Note 1: Just putting the wire thru the core with a simple U-turn counts as the first turn.

Note 2 : L1-L3 changed from #16 wire

Note 3: David K1NQ suggests - You should be winding all the cores with the wire spread out to cover 3/4 of the core for best Q. The core's permeability can vary +/-20% from lot to lot. It is better to start off with the recommended turns and then remove 1 or 2 turns if needed. You can use a MFJ meter to sweep the filter for SWR to center the inductors

Note 4: The W3LPL app notes on K1TTT's website says to tune the filters by squeezing or spreading turns and/or adding or subtracting turns

<http://www.k1ttt.net/technote/w3lplfil.html>

Note 5: N8RA used an Autek RF-1 to look at the SWR thru each filter. The SWR increases very rapidly outside the passband so he adjusts the turns and their initial spacing to achieve low SWR in the band under test.

Final tweaking of spacing is done by listening to that band on the air while switching the filter in and out.

Note 6: W1UE has wound some coils with 1 more turn than nominal and will borrow an MFJ Antenna Analyzer to tune them after they are in the box.

Note 7: The toroids can be wound "CW" or "CCW" on the core.

One of these ways will match the outline on the PCB, but it makes no difference electrically.