

Build a legal limit current balun for 160-10 meters
Phil Salas – AD5X

Wind two FT240-61 ferrite cores exactly as shown in Figure 1, and then add double-sided tape as shown in Figure 2. Note: Substitute 5' McMaster 9634T701 2-cond HV wire (\$3/ft) for the twisted wire shown.

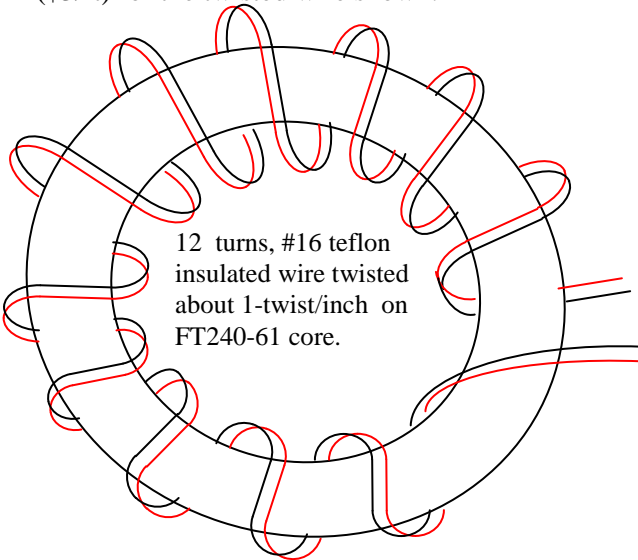


Figure 1: Make two of these

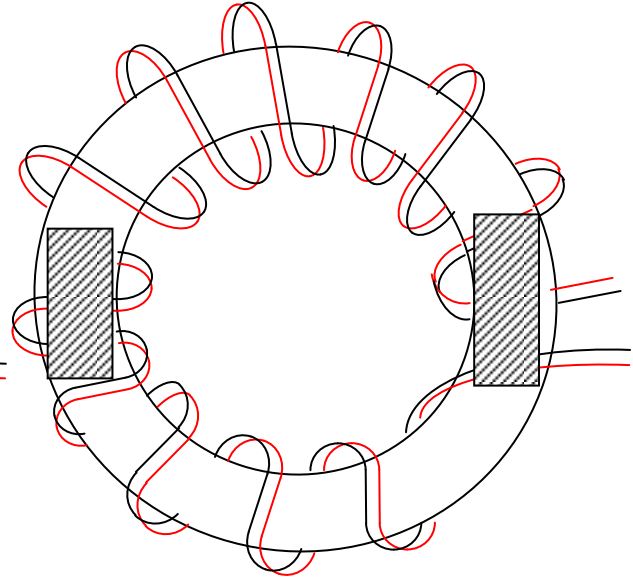


Figure 2: Add double-sided tape to both cores

Add double-sided tape to both sides of a 1.5x2" piece of fiberglass (or similar) as shown in Figure 3.

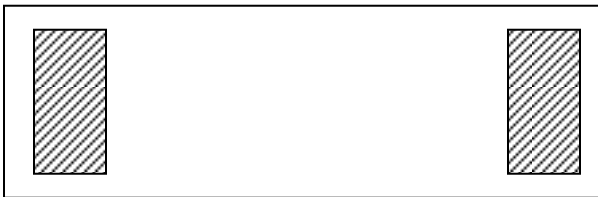


Figure 3: Fiberglass board with double-sided tape on both sides. (one side shown)

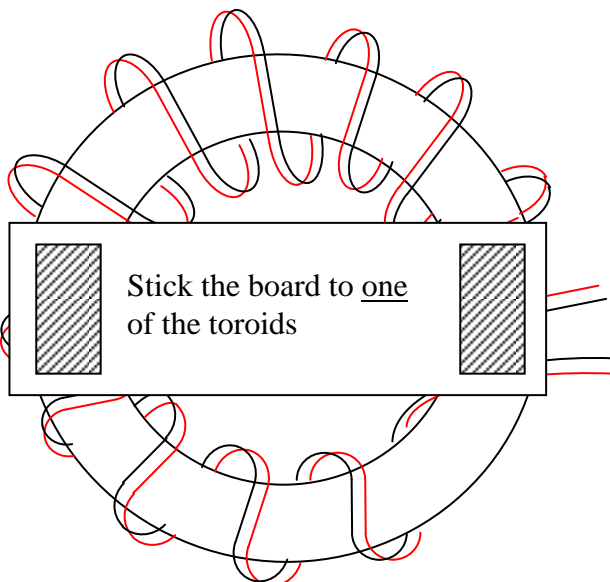


Figure 4: Fiberglass board stuck to one toroid

Flip the second toroid over and stick it to the fiberglass board. Tie-wrap the torroids together. Wire the two sets of toroids together. Looking at Figure 5:

- 1) Wire a top and bottom toroid red wire to the SO-239 center pin. Note the wires that are to be attached to the SO-239.
- 2) Wire a top and bottom toroid black wire to the SO-239 ground. Again, note which black wires are attached to the SO-239.
- 3) Solder a remaining top toroid red wire and bottom toroid black wire together as shown.
- 4) The remaining top toroid red wire and bottom toroid black wire are the antenna and ground outputs as shown.

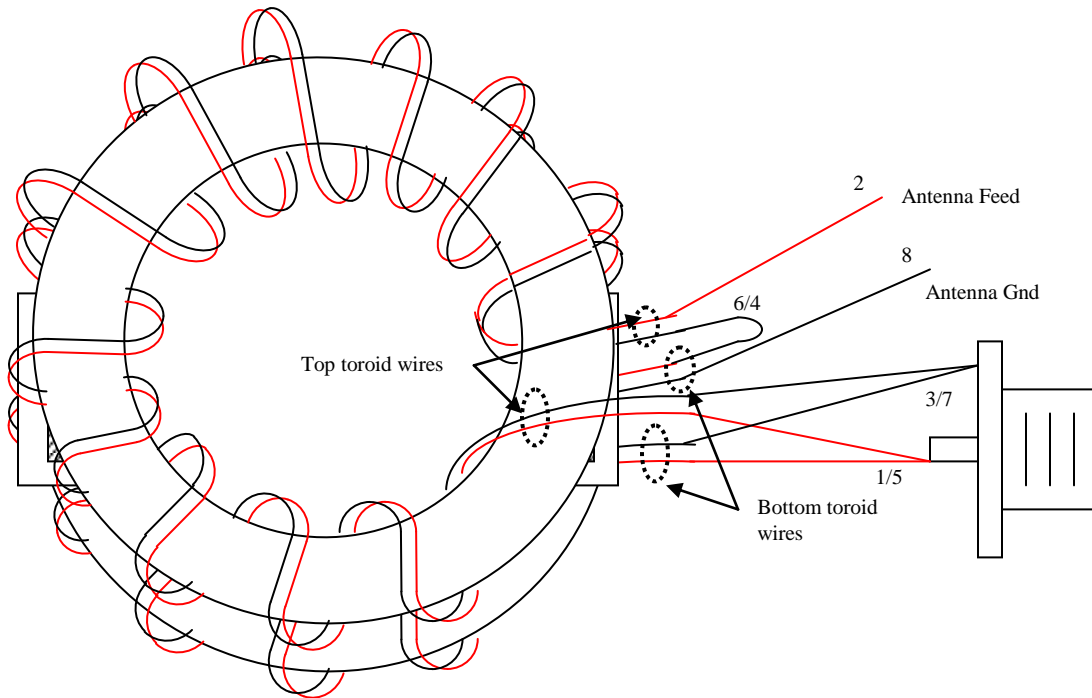
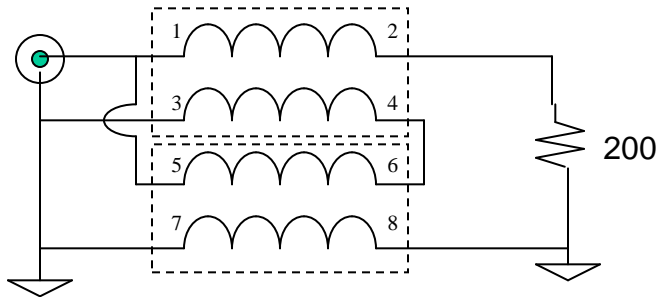
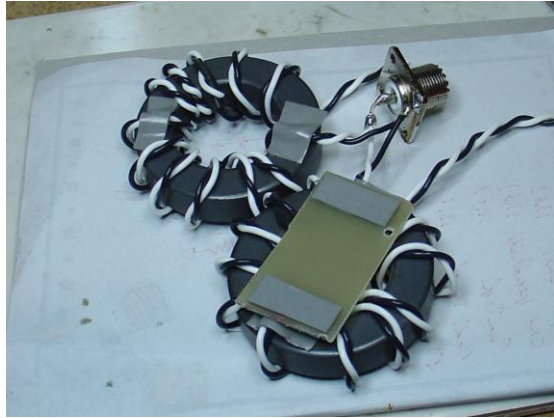


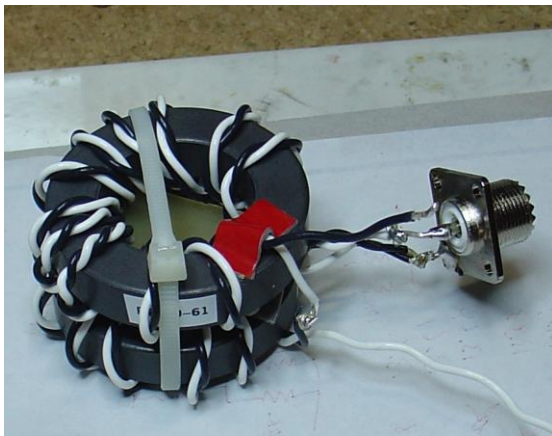
Figure 5: Balun wiring



Wound toroids



Insulator board on one toroid



Toroids flipped and tie-wrapped



Balun in box

