Coiled Choke Balun for HF

By G8MNY
(Updated Mar 09)
(8 Bit ASCII graphics use code page 437 or 850, Terminal Font)
A very practical Balun for HF aerial work is the choke type. It reduces RFI to & from the feeder & at next to no cost or loss. :-)

This is best placed at the rig end if using balanced feeder or where the coax is connected to a balance feed & there is a local RF earth on the coax, so the choke can do it job. E.g. the choke only has to be much higher Z than 25Ω. Placing this type of balun in mid air at the feedpoint is less effective as then the choke has to be much higher impedance than the free coax outer is!

Balanced Joiner Plastic
Balanced: ╔═════════════════════════════════════╗
feeder      Joiner     Plastic
Balanced: ║═════════════════════════════════════╦
feeder      Block     c)))))))))))))))))))o
Balanced: ║═════════════════════════════════════╦
Ferrite Rod

Wind 25 turns or so of bell/LS wire around a 14cm x 8mm ferrite rod from an old MW radio (or 10 turns on a medium-large sized ferrite ring). Tape it on firmly to provide some protection against damaging the ferrite.

Collect onto a PL259 plug. Pass one of the stripped wires through one of the outer case holes, while at the same time push the other one through the centre pin. Be careful that the heat does not damage the wire insulation when soldering up.

Put a joiner (2 way block) on the balanced end, so there is no excuse to throwing the ferrite balun around when /P.

For current isolating baluns to work well, the common mode Z need to be high compared to the half balanced circuit Z, e.g., >250 for 50Ω system. This choke is something like this..

Typical Common mode Z

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<th>5</th>
<th>7</th>
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<th>21</th>
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See my Tech bul "1:1 HF Balun".

Why Don't U send an interesting bul?

73 De John, G8MNY @ GB7CIP