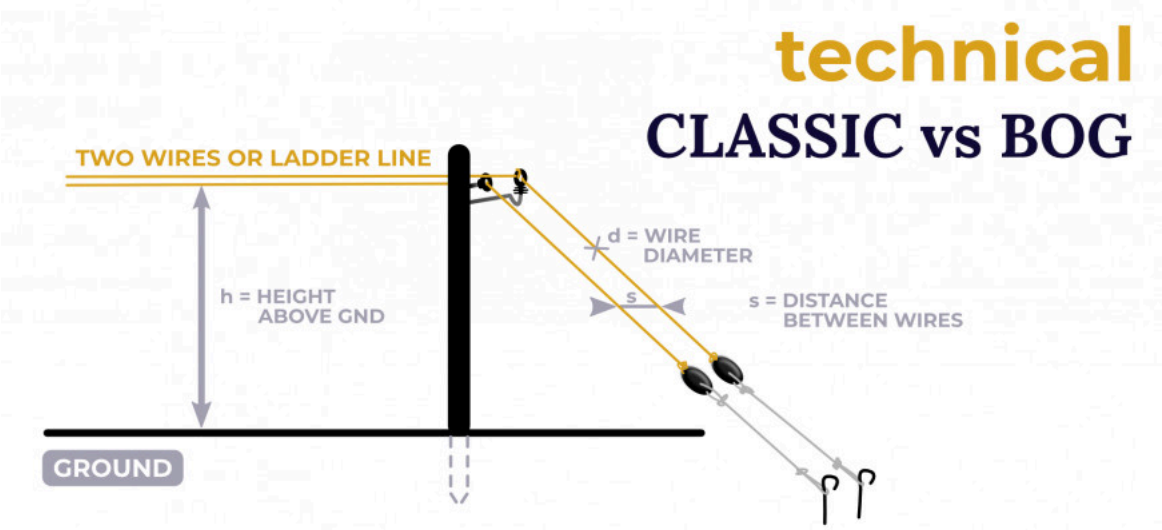
CLASSIC VS BOG WIRE BEVERAGE



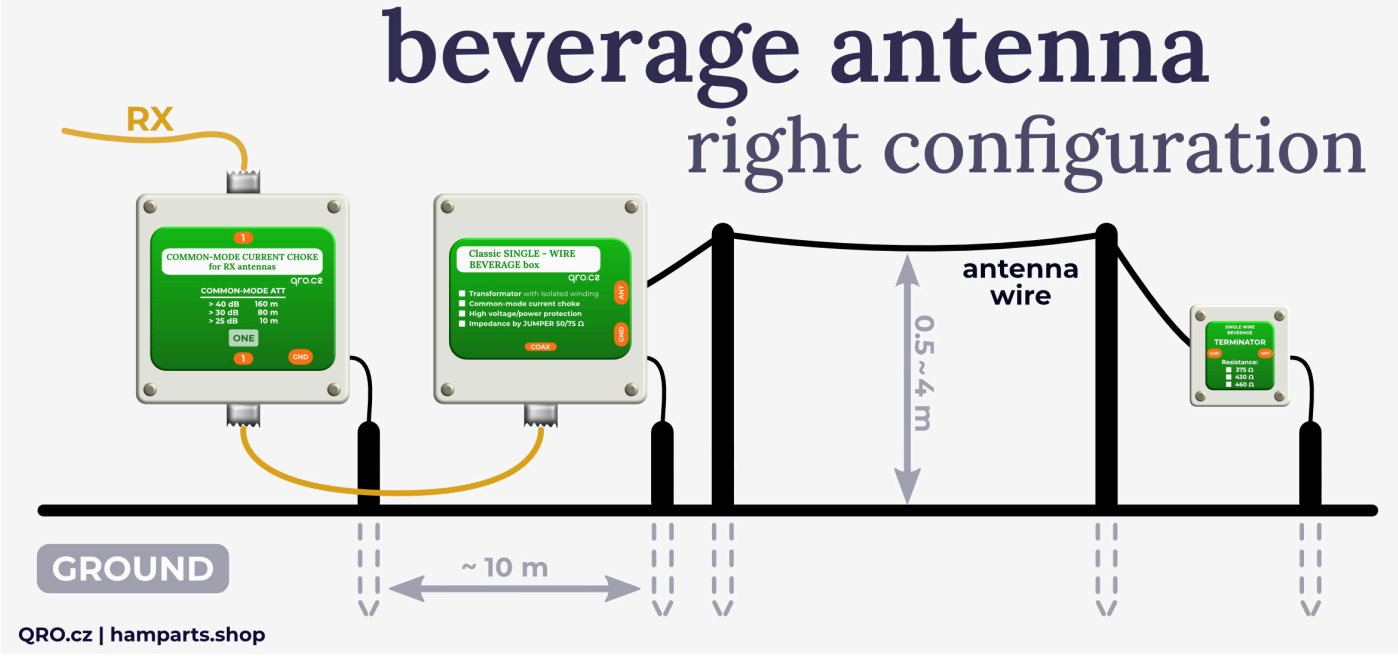
Advantages of BOG antenna

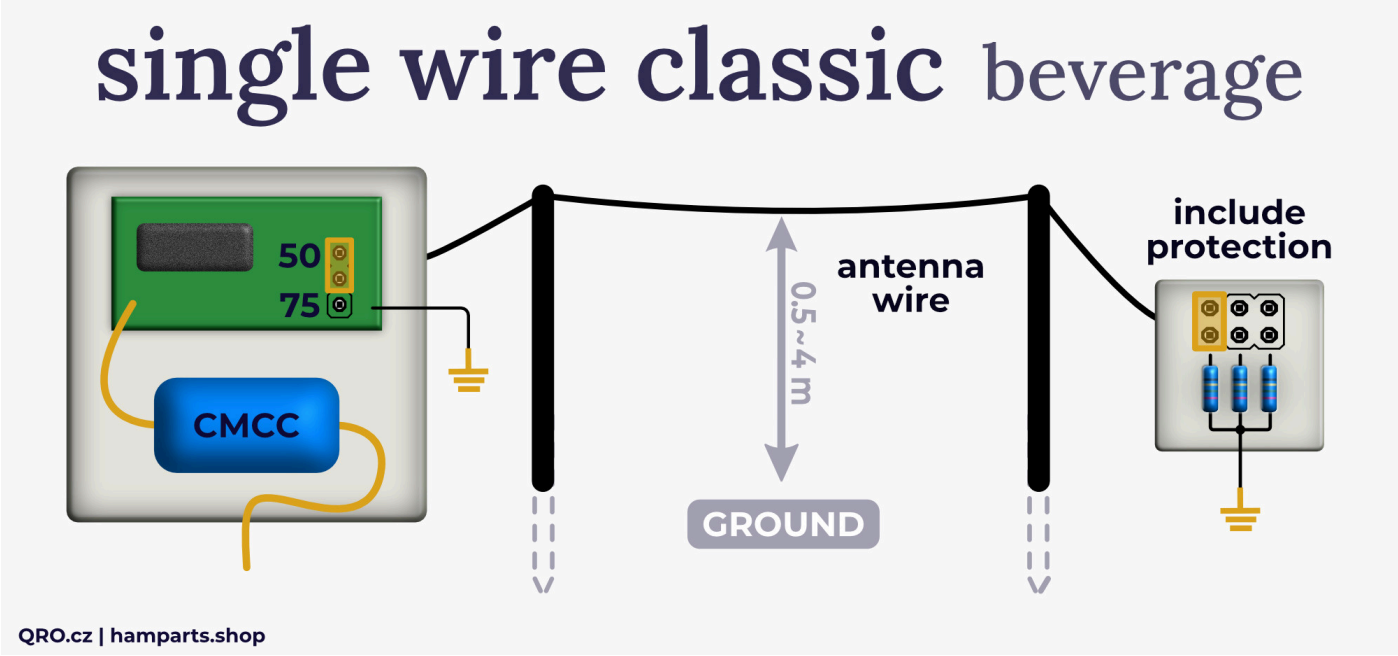
BOG (Beverage on ground) antenna has much **lower output signal** than from a comparable classic single wire (elevated) beverage antenna. Usually 10 to 15 dB down. This is RX antenna where we counts not for signal strength but SNR (signal-to-noise) ratio. We can use good RX preamplifier to increase the signal strength.
The impedance of BOG is lower than on classic beverage. This is because of the losses of the ground. It is around **200 to 300 Ohms**. We have to use 4:1 impedance transformer (compare to 9:1 for classic beverage).
What is interesting on BOG is lower **velocity factor (50 to 60% vs 95 to 98%)**. This means that a 80m long BOG has almost the same directivity as a 150m classic beverage. Its directivity is actually better than for the equivalent elevated beverage, as there is no vertical down lead wire causing omnidirectional signal pick up.
If you put a BOG on the ground, you or animals will trip over it. The BOG wire must be insulated. It is advisable to use teflon or similar high quality insulating material that can withstand abrasion (critters have sharp teeth!). Teflon insulated wire is the best, but expe
In a BOG situation the pick up on the outer screen of the feed line coax is as important as the pick up b the BOG antenna w means that **extra common-mode decoupling is mandatory**.
It si highly recommended to install common-mode choke in the feed line with a ground stake approximately 10 meters fr antenna feed point.

source: ON4U

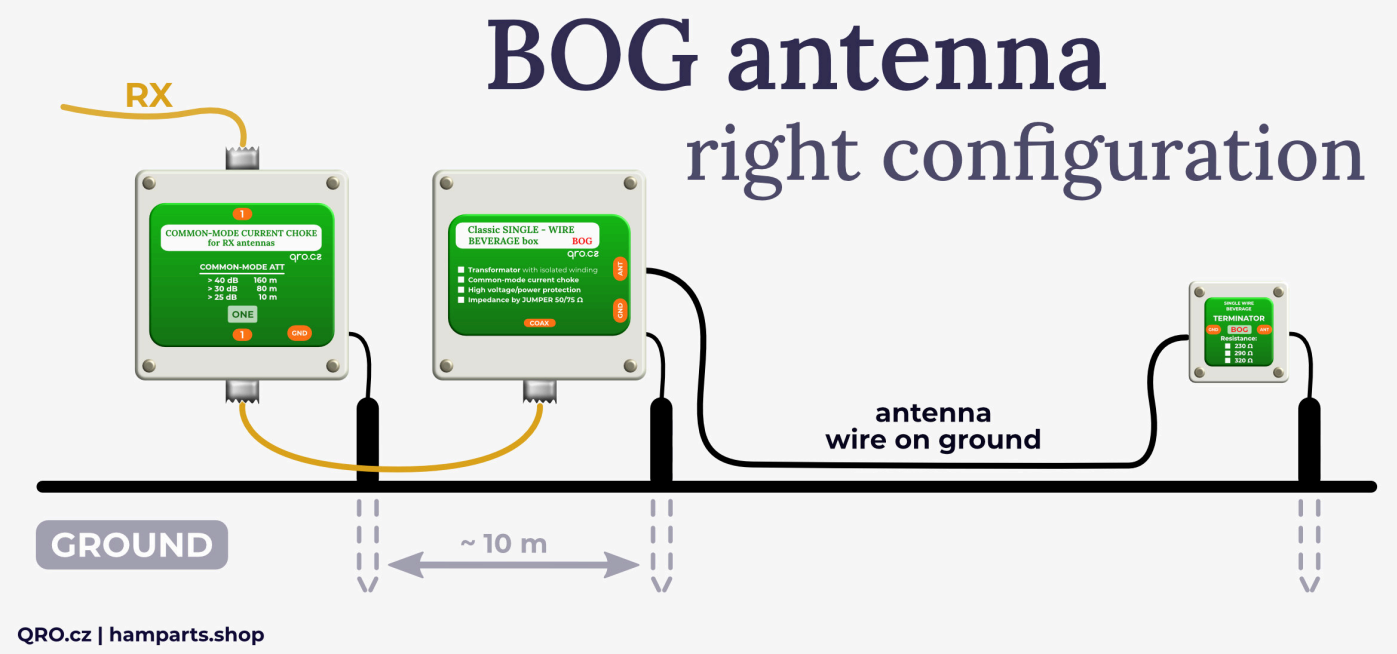
The length of the BOG antenna is critical. It is not easy to make a BOG antenna for three bands (160 - 40m). If the ant designed for 160m, it may have worse performance on 80m and not work at all or in the opposite direction on 40m.
TThe recommended length of a BOG antenna is about 60m (200 feet) for the 160m band. I recommend starting with this and possibly shortening or optimising it for other bands.
Remember that antenna characteristics can change considerably with changes in ground moisture, grass growth, leaf fall is recommended that the insulated antenna wire be placed at a low height, e.g. 2-5 cm (1 to 2 inches) above the ground.

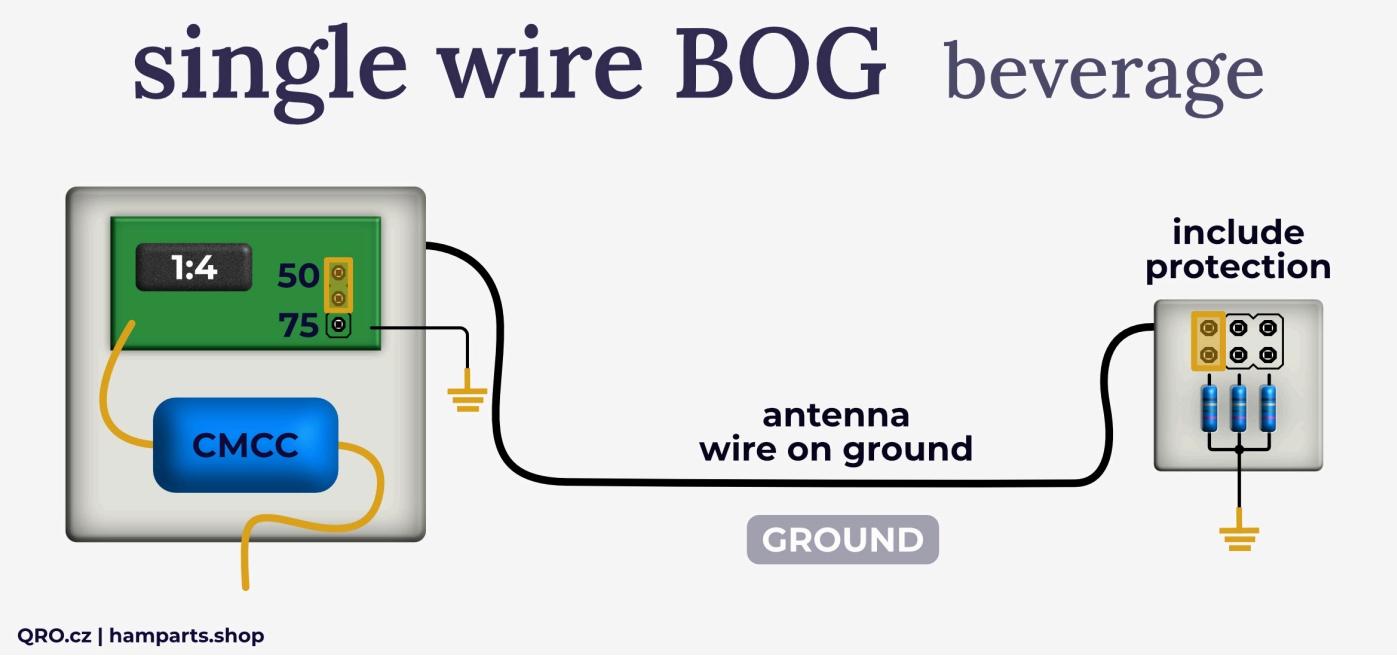
Classic (elevated) single wire beverage



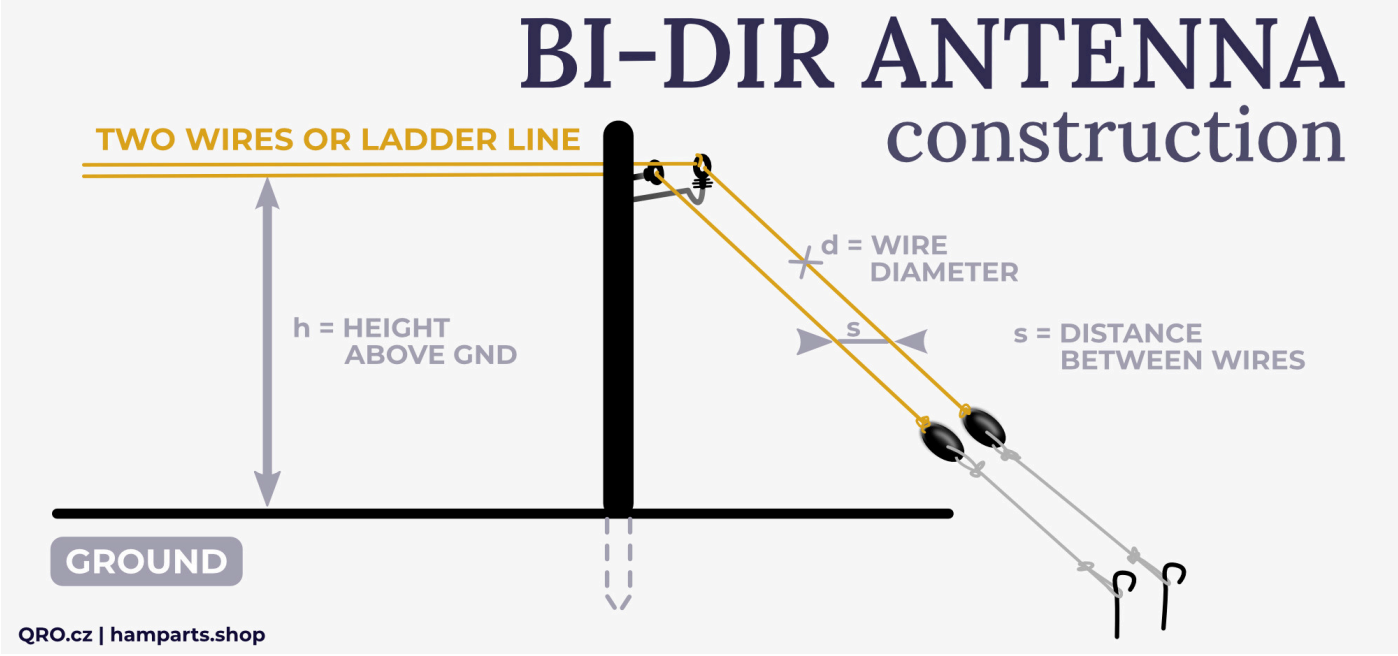


BOG - beverage (wire) on ground

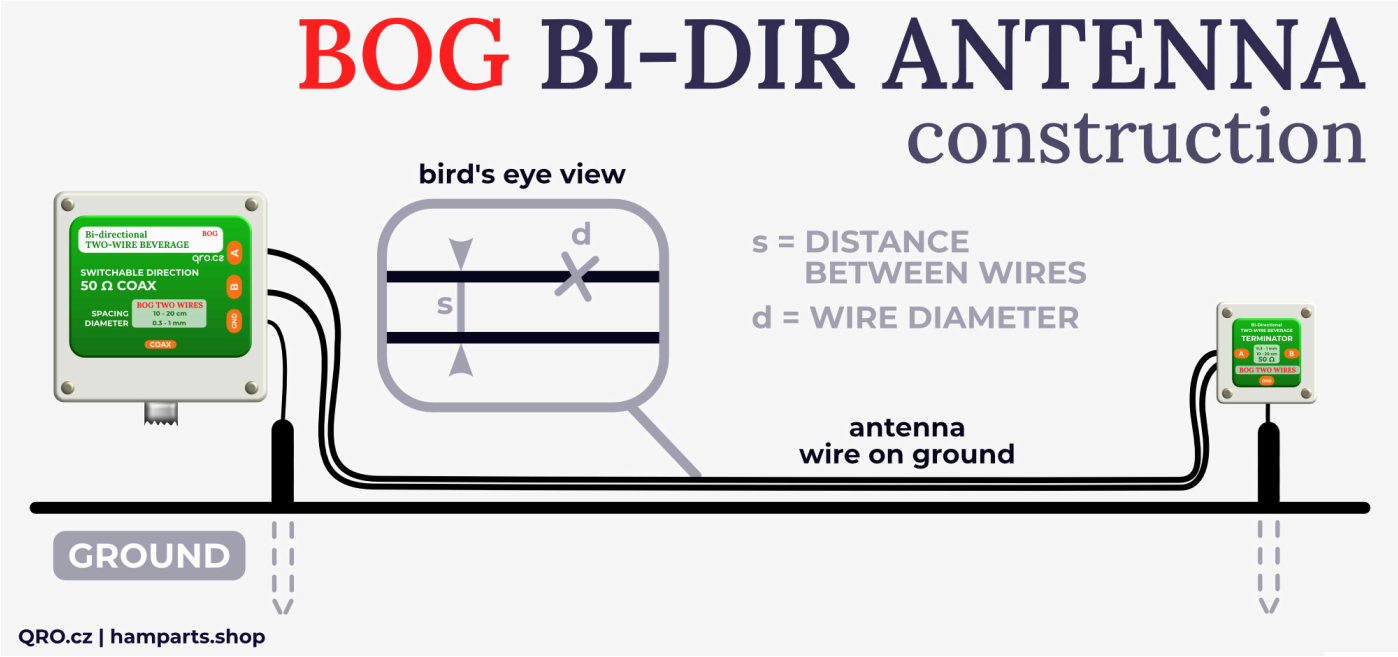




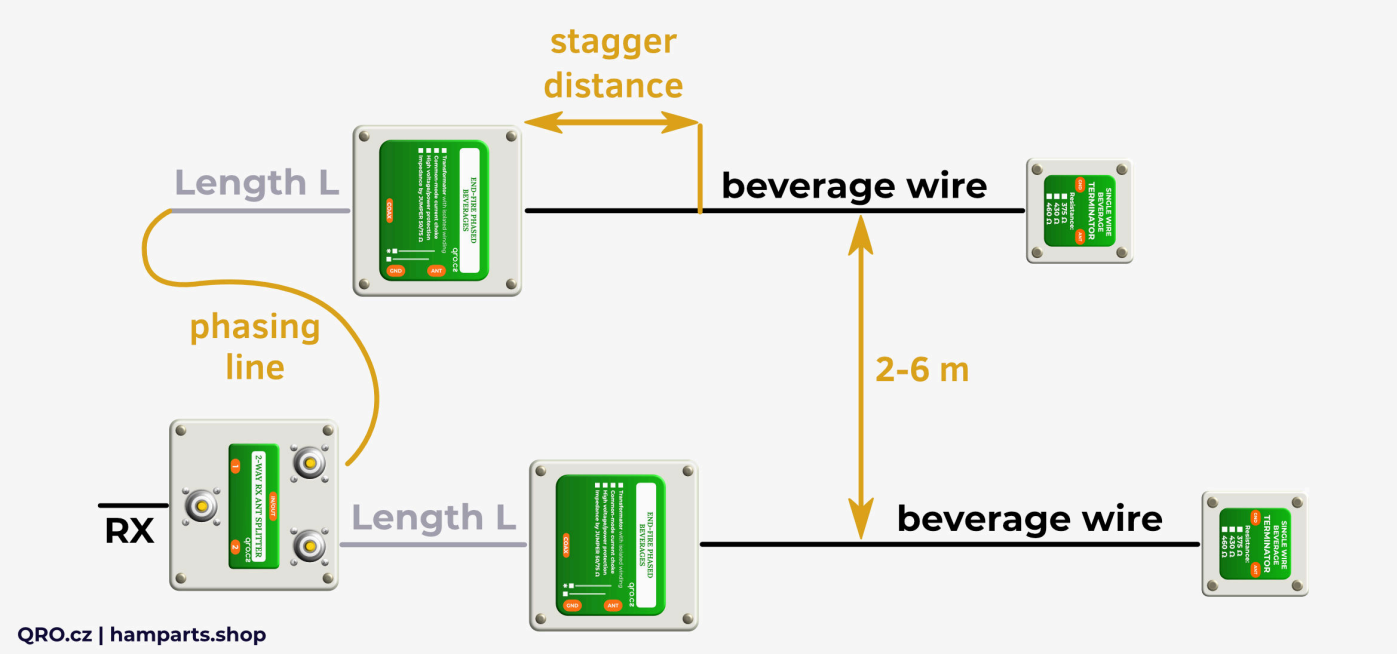
Bi-directional two wire beverage classic version



Bi-directional two wire beverage BOG - beverage (wire) on ground



2el End-Fire beverage antenna array



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