

Tripole Antenna Notes

The 42g tripole has swr of 2.7:1 , diameter of magnet wire .071 mm

The power loss is about 1db or 21% over an ideal antenna

If the original power was 12dbm, a power of 15.8 MW

The transmitted power would be 11dbm or 12.5 MW

With a PA the original power of 19dbm or 79.4 MW would be reduced to 18dbm or 63MW

The 38ga tripole antenna has a swr of 2 :1 or less ,diameter of magnet wire is .114mm

The power loss is about .51db or 11.1% over an ideal antenna.

If the original power was 12dbm, a power of 15.8 MW

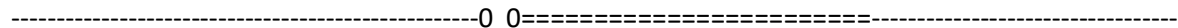
The transmitted power would be 11.5dbm or 14.1 MW

With a PA the original power of 19dbm or 79.4 MW would be reduced to 18dbm or 70.7MW

The 38ga tripole antenna weights about 2.3gms

The 42ga tripole antenna weights about 1.0 gms and is about .5db worse than the 38ga tripole.

Dimensions Tripole antenna has bottom legs spaced apart approximately 25mm.



Top: element= 5.85m U3 Bottom: a short element= 5.2m, a long element= 8.55m

The top element is in tension all the time so it is reinforced with dyneema 6 pound line glued with green contact cement at the ends for a distance of about 300mm and a 60mm spot every 600mm along the element.

The bottom elements have a 450mm leader of dyneema glued to the top part of each element with green contact cement. This provides a tie point for the elements helps support the lower elements that just hang from the U3 and lowers overall antenna weight.

Red Tyvek tape was used as a lower element spacer and small red flags were used at the bottom of the wire to make it more visible.



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