WIRE and CAPACITORS for SLANT IIDM (LEFT) and VERTICALLY ALIGNED IIDM (RIGHT)

Curves prepared from EZNEC™ data. Heights agl of link wires: 2.7metres (slant) and 2.0 metres (vertical).
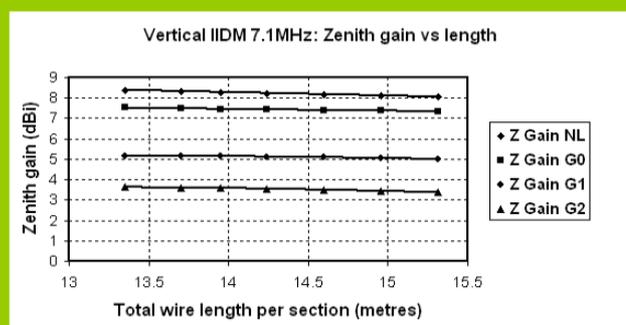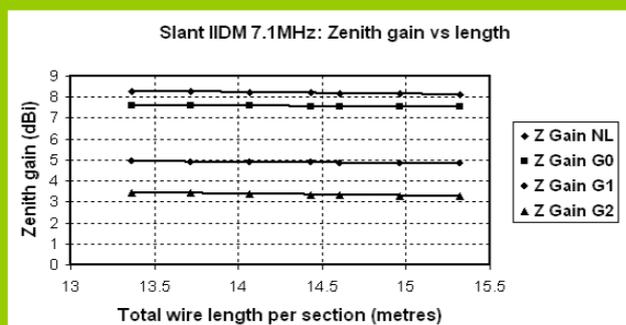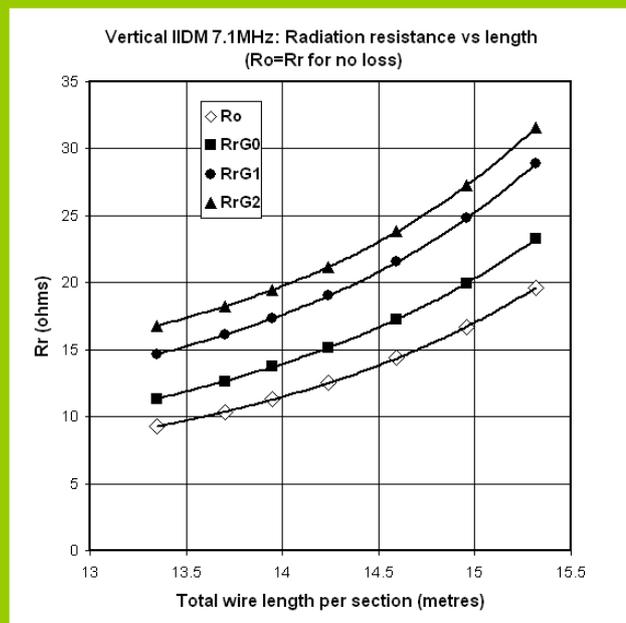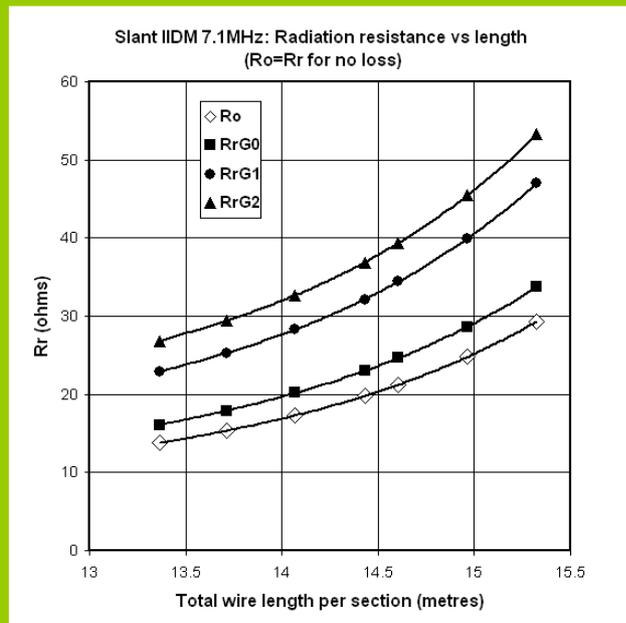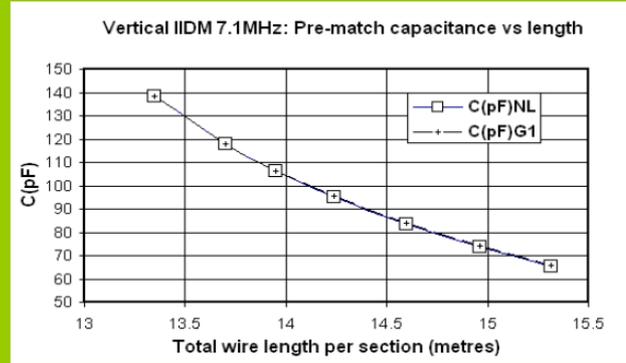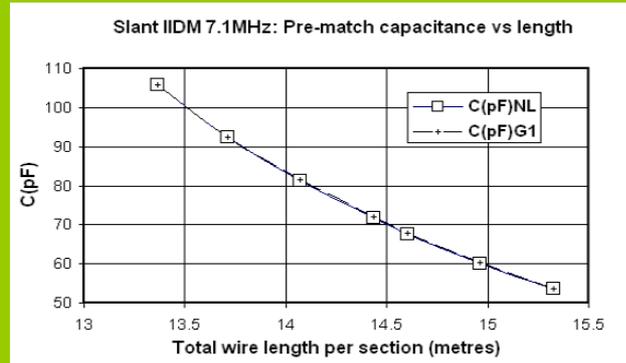
CHARTS. The left column gives values of pre-match **capacitance** values C (top) and expected **radiation resistance** Rr (middle) for a resonant crossed monopole (inwardly inclined dual monopole, IIDM) antenna with near 45 degree angles for slant (Y-direction) and cross-over (X-direction). **Gain** in the Z-direction (zenith) is shown at bottom. The right column gives corresponding parameter values for near vertical alignment (no slant). The charts show significant variations between columns for C and Rr, but interesting similarity in zenith gains for the heights given (see top of page). All plots are vs. the total wire length per section (element + link wire) and assume identical lengths are used for both halves of the antenna. The designated loss parameters for each curve shown are given in the legend boxes and have the following EZNEC™ assignments: **NL** no losses (perfect ground and conductors); **G0** copper loss only (perfect ground); **G1** copper loss + 'medium to good' ground [Cond. 0.005 s/m, DC=13]; **G2** copper loss + poor ground [Cond. 0.001 s/m, DC=2]. When adjustments to C and wire length are made, the above charts should be useful in helping to achieve minimum VSWR, and the middle charts particularly for feeder matching. We note Rr and zenith gain are strongly influenced by losses. But for choice of C, wire length dominates. A balun is recommended. DJT 10/10/07.

Title: 40m G8ATH/G0SIB crossed monopole antenna for HF / NVIS.

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GQRP Club
Datasheet