

# Phasing Yagi Antennas

The phasing of yagi antennas can be done in vertical or horizontal polarisation and will, when properly implemented, boost the available gain by 3.0 dB (for two antennas) or 6.0 dB (for four antennas) over the gain for a single antenna.

The phasing of yagi antennas requires critical control of both the "Baying" and "Stacking" dimensions as shown in the illustrations. It is important to note that in all cases, these dimensions (B and S from our illustrations) should be identical at any one frequency.

These distances vary with the number of antenna elements and the frequency of operation. To ensure that your antennas are phased at the

optimum distance, use the following charts to determine the distance which should be used for the antennas you are using.

**PLEASE NOTE:** If you are phasing antennas in MULTIPLE directions, rather than phasing yagi antennas together for additional gain in a single direction, you will experience a net LOSS in gain over your individual antenna gain of 3.0 dB for a two way split and 6.0 dB for a four way split.

For more information on the effect of phasing yagi antennas, please contact [john@gprsmodems.co.uk](mailto:john@gprsmodems.co.uk)

