



$$Z_{\text{DIFF}} \approx \frac{120}{\sqrt{\epsilon_R}} \ln\left(\frac{2S}{D}\right),$$

WHERE Z IS THE DIFFERENTIAL IMPEDANCE, S IS THE CENTER-TO-CENTER SPACING, D IS THE DIAMETER, S ALWAYS EXCEEDS D, AND $2S/D$ ALWAYS EXCEEDS D.

EXAMPLE:

$$\frac{2S}{D} = \frac{2(1.3)}{0.95} = 2.736.$$

Figure 1 The differential impedance of this twisted-pair configuration depends on the ratio of spacing, S, to conductor diameter, D.