

TM resonant wavenumbers for a coax with $a = 1$, $b = 4$:

$n=0$ 1.0244

$n=1$ (2) 1.1119

$n=2$ (2) 1.3300

$n=3$ (2) 1.6066

$n=4$ (2) 1.8996

$n=0$ 2.0809

$n=1$ (2) 2.1342

$n=5$ (2) 2.1934

$n=2$ (2) 2.2861

$n=6$ (2) 2.4841

$n=3$ (2) 2.5149

$n=7$ (2) 2.7716

$n=4$ (2) 2.7922

These are the solutions of $Y_n(ka)J_n(kb) - Y_n(kb)J_n(ka) = 0$