

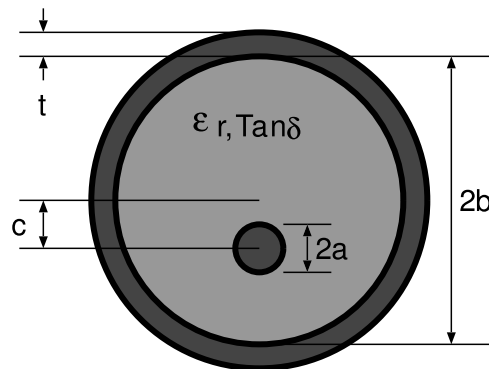
# Wcalc Transmission Line Analysis/Synthesis

## Version 1.1

### Coaxial Transmission Line Analysis/Synthesis

#### Model Version v0.1

1/1



Radius of inner conductor (a)	= 0.18 mm
Diameter of inner conductor (2a)	= 0.36 mm
Inside radius of outer conductor (b)	= 0.6 mm
Inside diameter of outer conductor (2b)	= 1.2 mm
Center conductor offset (c)	= 0 mm
Shield thickness (t)	= 0.24 mm
Line physical length (len)	= 257.5 mm
Center conductor resistivity ( $\rho_a$ )	= 3e-008 Ohm-m
Shield conductor resistivity ( $\rho_b$ )	= 3e-008 Ohm-m
Relative dielectric constant ( $\epsilon_r$ )	= 4.8
Dielectric loss tangent (tan $\Delta$ )	= 1e-006
Dielectric breakdown field strength ( $E_{max}$ )	= 0 kV/m
Analysis Frequency	= 2450 MHz
Characteristic Impedance	= 32.9493
Electrical length	= 1.65976e+006 mm
Delay	= 1.88182 ns
TE <sub>10</sub> mode cutoff frequency	= 57.424 GHz
Conductor loss	= 2.62677 dB
Dielectric loss	= 0.000488574 dB
Total loss	= 0.67652 dB
Total loss per length	= 2.62726 dB/m
Incremental Inductance	= 0.240795 nH/mm
Incremental Capacitance	= 0.221796 pF/mm
Incremental Resistance	= 19.929 mOhm/mm
Incremental Conductance	= 3.41428 uMho/m