$$\frac{\partial}{\partial x}E_y - \frac{\partial}{\partial y}E_x = i\omega B_z \qquad \frac{\partial}{\partial x}B_y - \frac{\partial}{\partial y}B_x = -\frac{i\omega}{c^2}E_z$$

$$\frac{\partial}{\partial y}E_z - ikE_y = i\omega B_x \qquad \frac{\partial}{\partial y}B_z - ikB_y = -\frac{i\omega}{c^2}E_x$$

$$ikE_x - \frac{\partial E_z}{\partial x} = i\omega B_y \qquad ikB_x - \frac{\partial}{\partial x}B_z = -\frac{i\omega}{c^2}E_y$$

$$ikE_x = \frac{\partial E_z}{\partial x} + i\omega B_y$$

$$ikB_y = \frac{\partial}{\partial y}B_z + \frac{i\omega}{c^2}E_x$$

$$ikE_x = \frac{\partial E_z}{\partial x} + \frac{\omega}{k}\left(\frac{\partial}{\partial y}B_z + \frac{i\omega}{c^2}E_x\right)$$

$$i\left(k - \frac{\omega^2}{kc^2}\right)E_x = \frac{\partial E_z}{\partial x} + \frac{\omega}{k}\frac{\partial B_z}{\partial y}$$