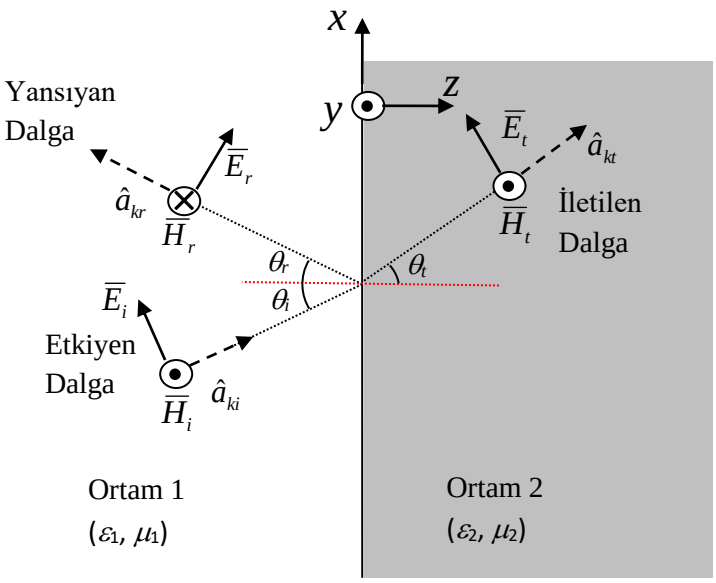
x
y
z
Yansıyan
Dalga
$\overline{E}_r$
$\hat{a}_{kr}$
$\overline{H}_r$
$\overline{E}_t$
$\hat{a}_{kt}$
$\overline{H}_t$
İletilen
Dalga
θ_r
θ_i
θ_t
$\overline{E}_i$
Etkiyen
Dalga
$\hat{a}_{ki}$
$\overline{H}_i$
Ortam 1
(ε_1, μ_1)
Ortam 2
(ε_2, μ_2)

Genel olarak:

$$\bar{E}_i(z) = \hat{a}_x E_{i0} e^{-j\bar{k}\cdot\bar{r}}$$

$$\bar{k} = k_x \hat{a}_x + k_y \hat{a}_y + k_z \hat{a}_z$$

$$\left|\bar{k}\right| = k$$

$$\bar{r} = x\hat{a}_x + y\hat{a}_y + z\hat{a}_z$$

$$\bar{E}_i(z) = \hat{a}_x E_{i0} e^{-j\bar{k}\cdot\bar{r}} = \hat{a}_x E_{i0} e^{-j(k\hat{a}_z)\cdot(x\hat{a}_x + y\hat{a}_y + z\hat{a}_z)} = \hat{a}_x E_{i0} e^{-jkz}$$

Zamanda:

$$\bar{\mathscr{E}}_i(z;t) = \hat{a}_x E_{i0} \cos(\omega t - \bar{k} \cdot \bar{r})$$
$$\bar{k} = k_x \hat{a}_x + k_y \hat{a}_y + k_z \hat{a}_z$$
$$\left|\bar{k}\right| = k$$
$$\bar{r} = x\hat{a}_x + y\hat{a}_y + z\hat{a}_z$$

$$\bar{\mathscr{E}}_i(z;t) = \hat{a}_x E_{i0} \cos(\omega t - \bar{k} \cdot \bar{r}) = \hat{a}_x E_{i0} \cos[\omega t - (k\hat{a}_z) \cdot (x\hat{a}_x + y\hat{a}_y + z\hat{a}_z)] = \hat{a}_x E_{i0} \cos(\omega t - kz)$$