M. Hasyim Abdillah P. 1104190095 TT-43-11

$\hat{a}_x \; \hat{a}_y \; \hat{a}_z$

$-\hat{a}_y \times -\hat{a}_x = \hat{a}_z$

$H_0 = \frac{E_0}{377} \Rightarrow E_0 = H_0 . 377$

$= 0,25 . 377 = 94,25$

$f = \frac{v}{\lambda} = \frac{3 \times 10^8}{25 \times 10^{-2}} = 1,2 \times 10^9 \; Hz$

$= 1,2 \; GHz$

$\beta = \frac{2\pi}{\lambda} = \frac{2\pi}{0,25} = 25,13$

$-\hat{a}_x \times -\hat{a}_z = -\hat{a}_y$

$-(-\hat{a}_z \times -\hat{a}_x) = -(\hat{a}_y)$

$= -\hat{a}_y$

$E_0 (-x) \rightarrow -\hat{a}_x$

$H_0 (-z) \Rightarrow -\hat{a}_z$

$P (-y) \Rightarrow -\hat{a}_y$

$f = 500 \; MHz$

$\lambda = \frac{v}{f} = \frac{3 \times 10^8}{5 \times 10^8} = 0,6 \; m = 60 \; cm$

$\beta = \frac{2\pi}{\lambda} = \frac{\omega}{v} \pi = 10,47 \; rad/m$

$H_0 = \frac{E_0}{377} = \frac{20}{377} = 0,066 = 66 \; m \; \frac{Ampere}{meter}$