

At one instant, the electric and magnetic fields at one point of an electromagnetic wave are :

$$\vec{E} = (220 \hat{i} + 300 \hat{j} - 50 \hat{k}) \text{ V/m and}$$

$$\vec{B} = B_0(7.9 \hat{i} - 7.9 \hat{j} + a \hat{k}) \mu\text{T}$$

1. What is the value of a ?
2. What is the value of B_0 ?
3. What is the Poynting vector at this time and position? Find the x-component, the y- component, and the z-component.

(All answers to 2 significant figures)

I have attached a similar problem and solution with different numbers to review.