3200103514 叶奕含

121 AM: 重直方向

FM: 圆松红. 各个方向

TV: 水平方向, 与地面平行

(a) V=6ei#

(b) I(t) = -8 sin(wt) = 8 sin(-wt) = 8 cos(-wt-=) = 8 cos(ut+=) ヺ İ = 8e i = 8i

(C) $A(t) = -3\cos(wt + \frac{\pi}{2}) - 2\cos(wt)$: A = -31-2

(d) $\widetilde{C} = 6 \exp(-\frac{\pi}{2}i) = -6i$ (e) (f) 无法化成相量形式

P2.3

(a) E = 2205(RZ-W+ =)+ y COS(RZ-W++=)

 \hat{X} : $2(o((k2-wt+\frac{\pi}{2})) = -2(in(k2-wt))$ ŷ = \(\frac{1}{2}\cos(R2-wt) - \frac{1}{2}\sin(R2-wt)\)

 $\frac{x^2}{2} + 2y^2 - \sqrt{2}xy = 1$

为种圆极化.

(b) == 2 (OS(kz-wt)

= $\frac{1}{2} \left[\frac{2}{3} \cos(kz - wt) + \frac{1}{9} \sin(kz - wt) \right] + \frac{1}{2} \left[\frac{2}{3} \cos(kz - wt) - \frac{1}{9} \sin(kz - wt) \right]$ == α cos(kz-ut+=) + y cos(kz-wt-=)

汆COS(RZ-W+≠) 和φCoS(RZ-W+-泵)分别为两线极行液. P24

 $\lambda = \frac{1}{100} = 0.01 \text{ m}$ Ē(z-o,t) = E. [x̂(OS(Wt)-ýsīn(Wt)] 二左校圆极代液

虫暴矩p=入こののIm

P1-2-3

P1.2.6

同上P2·3

Q 1= 100 = 0.01m

f = C/N = 3×1010 HZ

(a)
$$t = 150 \times 10^{9} / (3 \times 10^{8}) = 50$$

(b)
$$P = 1.5 \text{ kW/m}^2 \times (\pi \times 6.4 \times 10^6)^2 = 1.93 \times 10^{14} \text{ kW}$$

(c) $t = \frac{\text{mc}^2 \cdot 1^{\circ/0}}{5 \cdot 41 \text{ p}^2} - \frac{2 \times 10^{30} \times (3 \times 10^8)^2 \times 1^{\circ/0}}{(5 \times 10^3)^3 \times (3 \times 10^8)^3 \times 1^{\circ/0}} = 4.2 \times 1$

(b)
$$P = \frac{15 \text{ FW/m}^2 \times \frac{17 \times 6.4 \times}{10^3 \text{ mc}^2 \cdot 1^{9/9}}}{5 \cdot 47D^2} - \frac{2 \times 10^{30} \times 3 \times}{1.5 \times 10^3 \times 47}$$

E= Jzns = 8.68x10-5 V/m

(b)
$$P = 1.5 \text{ kW/m}^2 \times (\pi \times 6.4 \times 10^6)^2 = 1.93 \times 10^{14} \text{ kW}$$

(c) $t = \frac{mc^2 \cdot 1^6/6}{5 \cdot 4\pi D^2} - \frac{2 \times 10^{36} \times (3 \times 10^8)^2 \times 1^9/6}{1.5 \times 10^3 \times 4\pi \times (150 \times 10^4)^2} = 4.2 \times 10^{18} \text{ s}$

$$P = \frac{15 \text{ kW/m}^2}{5 \cdot 470^2} \times \frac{17 \times 6 \cdot 4 \times 10}{(5 \times 10^3 \times 47 \times 10^3 \times 1$$

$$= \frac{1.5 \text{ kW/m}^2}{5.4 \text{ fp}^2} \times \frac{1.7 \times 1.4 \times 10}{1.5 \times 10^3} \times \frac{2 \times 10^3 \times 43 \times 10}{1.5 \times 10^3 \times 43 \times 10}$$

$$= \frac{15 \text{ FW/m}^2}{\text{C} \cdot 47 \text{ P}^2} \times (7 \times 6.4 \times 10^{20})$$

$$= \frac{\text{mC}^2 \cdot 1^{0/0}}{\text{C} \cdot 47 \text{ P}^2} - \frac{2 \times 10^{30} \times 3 \times 10^{20}}{(5 \times 10^{30} \times 10^{30})}$$

$$= \frac{115 \text{ kW/m}^2}{15 \text{ kW/m}^2} \times \frac{17 \times 6.4 \times 10}{2 \times 10^{30} \times 3.7 \times 10}$$

$$\frac{1.5 \text{ kW/m}^2 \times (7 \times 6.4 \times 10^6)}{\text{mc}^2 \cdot 1^6/6} = 500 \text{ s}$$

$$\frac{1}{1000} \times (7 \times 1000)^{2} = 1.93 \times 1000$$

$$\frac{1}{10000} \times (3 \times 1000)^{2} = 1.93 \times 1000$$

$$\frac{10^{10}}{4\pi D^2} - \frac{2\times10^{30} \times (3\times10^{8})^2 \times 10^{9}}{15\times10^{3} \times 47 \times (150\times10^{9})^2} = 10^{10}$$

$$\frac{1.2 \times 10^{30} \times 1.2 \times 10^{30}}{1.2 \times 10^{30}} = \frac{2 \times 10^{30} \times 10^{30} \times 10^{30}}{1.2 \times 10^{30} \times 10^{30}}$$

(d) S=10-10 Wm2H2-1 X 1X104H2=1011 W/m2

 $\Theta = 0.6328 \times 10^{3} \text{m}$ $\therefore k = \frac{1}{\lambda} \text{Ko} = 1.58 \times 10^{6} \text{Ko}$

3 f= 24x109Hz == K= f/c Ko = 8Ko

$$|50 \times 10^{1} / (3 \times 10^{8})| = 500$$

(a)
$$t = 150 \times 10^{9} / (3 \times 10^{8}) = 500$$







