Name

Course name TX00XXXX-1337
Assignment name

Metropolia University of Applied Sciences

Bachelor of Engineering

Information Technology

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Metropolia

Contents

Solution

1.

(a)

Equation of the signal is given by:

$$v(t) = \frac{2A}{\pi}\left[sin(2\pi f_0 t) - \frac{sin(2\pi \cdot 3f_0 t)}{3^2} + \frac{sin(2\pi \cdot 5f_0 t)}{5^2} - \frac{sin(2\pi \cdot 7f_0 t)}{7^2} + \frac{sin(2\pi \cdot 9f_0 t)}{9^2} - \frac{sin(2\pi \cdot 11f_0 t)}{11^2} + ...\right] \quad (1)$$

Equation 1 shows ...

(b)

The gain of a reflector antenna is given by:

$$g = \frac{4\pi A_e}{\lambda^2} \tag{2}$$