

Q1:

$R_L = 1\text{ k}\Omega$, Bandwidth = 10 GHz, find the noise current and noise voltage

Noise current : $0.4\text{ }\mu\text{A}$

Noise voltage : 0.4 mV

$$F_N = 2\text{dB} \quad T = 25^\circ\text{C} \quad R_D = 0.8\text{ A/W}$$

Q2:

Let $R_d = 1.2$, Optical Power = 1 mW for a 10 GHz system
Find the shot noise current and voltage for a load of $1\text{ k}\Omega$ –
(assume dark current is 0)