

# Download Consider A Photoconductor

A photoconductor unit is a component of a laser printer that includes a photosensitive print drum. Digitized data is sent via an electrostatic charge to the photoconductor or photosensitive drum, also called the PC kit, which then distributes the ink to the paper. The photoconductor unit is considered one of the core components of a laser printer. Typical Photoconductor Amplifier Circuit. Due to the noise characteristic of a photoconductor, it is generally suited for AC coupled operation. The DC noise present with the applied bias will be too great at high bias levels, thus limiting the practicality of the detector. For this reason, IR detectors are normally AC coupled to limit the noise. A photoconductor: A. produces light when absorbing x ray B. produces x ray when absorbing light C. absorbs light and produces charge D. absorbs x ray and produces electrical charge Question:

Photoconductor [30 Points] Consider A Photoconductive Device Designed For Detecting Thermal Infrared Radiation With Photon Energy Of About  $E_{\text{photon}} = 0.12 \text{ eV}$ . The Device Is Made Of The Semiconductor Material Mercury Cadmium Telluride (MCT) With The Following Properties: Bandgap  $E_g = 0.08 \text{ eV}$ ; Effective Densities Of States In Conduction And Valence Band ...