Abstract

Moustafa Hussein Aly

Indoor Half-Pulse L-PPM for Wireless Optical Communications: Effect of Ambient Light Noise and Flicker

The effect of ambient radiation that includes noise and flicker voltages on half pulse L-PPM for WOC applications is studied. Photodiode responsivity and capacitance effects are investigated on flicker and noise voltages levels for indoor 4-PPM. Si p-i-n photodiodes and Si APDs are tested to find which photodetector type in most suitable for indoor WOC application. The study is focused in incandescent lamps (tungsten lamps) and fluorescent lamps.