

In 2014-2015, Haas's group went even further as they harvested energy and received data from the same source using a PV device, proposing a novel front-end circuit to ...

This paper proposes a novel design of an optical wireless communications (OWC) receiver using a solar panel as a photodetector. The proposed system is capable of ...

polycrystalline Si PV panel and OFDM. Going forward from these initial demonstrations, a 12 Mb/s wireless data link with a distance of 1 m was created in [11] using a white LED and the same ...

Experimental Validation of Optical Wireless Receiver using Solar Panel with Bandwidth Enhancement Circuit
June 2022 DOI: 10.1109/VTC2022-Spring54318.2022.9860765

A receiver circuit to interface the solar panel with the FSO system was designed and developed to demonstrate the data communication and energy harvesting performance. ...

In this work, we have designed, developed and deployed the world's first optical wireless communication (OWC) system using off-the-shelf lasers and solar photovoltaics. Four bidirectional OWC prototypes have been ...

In this paper, for the first time, we investigate the superiority of a solar panel used as a detector in a UWOC system. Compared with PIN diodes and APDs, the off-the-shelf ...

DOI: 10.1109/ICOCN.2017.8121577 Corpus ID: 9058729; Visible light communication using a solar-panel receiver @article{Sarwar2017VisibleLC, title={Visible light communication using a ...

The presented theory is supported with an experimental implementation of orthogonal frequency division multiplexing (OFDM), thus, proving the validity of the analysis ...

The effects of sunlight on using a low-cost off-the-shelf silicon solar panel as an optical wireless communication (OWC) receiver and an equivalent circuit model of the solar panel for ...

Therefore, a self-powered receiver based on a solar panel was designed and introduced in [11], by which a communication link of 11.84 Mbps was established, proving that ...

This chapter presents state-of-the-art and major developments in wireless power transfer using solar energy. The brief state-of-the-art is presented for solar photovoltaic technologies which can be combined with ...

wireless communications (OWC) receiver using a solar panel as a photodetector. The proposed system is capable of simultaneous data transmission and energy harvesting. The solar panel ...

DOI: 10.1364/OE.24.0A1300 Corpus ID: 7476513; Self-reverse-biased solar panel optical receiver for simultaneous visible light communication and energy harvesting. ...

A 5-watts polycrystalline solar panel is used for experiment and the solar panel parameter values are given in Table I. To evaluate the performance of a solar panel receiver with and without ...

This paper explores the effects of sunlight on using a low-cost off-the-shelf silicon solar panel as an optical wireless communication (OWC) receiver. A receiver circuit ...

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