# Solar power antenna

Which antenna arrays are integrated with a solar cell?

Different antenna arrays have been integrated with a solar cell 21,22,23,24,25. Amorphous silicon solar cells and dye-sensitized solar cells have been integrated with a microstrip slot antenna array21,22,whereas an antenna array has been integrated with multi-crystalline solar cells for low-power sensor applications 23.

Can a solar cell be used as an antenna?

The distance between the transmitter and receiver was 10 m. This work used a CIGS-based solar cell as an antenna,making a single dual-functional device. A small slot was cut in the solar cell,and lumped elements were used with the slot for resonance to obtain the antenna functionality from a solar cell.

What is solar cell integrated transparent antenna?

The solar cell integrated transparent antenna will serve the purpose of power generation as well as an antenna for satellitesand can act as an asset to expand the possibilities of green technology. The goal is to enhance antenna characteristics without hampering solar cell performance.

Can a solar cell be integrated with a dipole antenna?

A solar cell has been integrated with a dipole antennafor energy harvesting and wireless communications 19,whereas a solar-cell-integrated antenna has been proposed for 2.4 GHz applications with a low profile structure 20. Different antenna arrays have been integrated with a solar cell 21,22,23,24,25.

Solar energy can indeed function as an antenna due to its ability to capture and convert electromagnetic radiation into usable power, 2. The principles governing solar energy and antenna ...

The proposed antenna is designed at 2.42 GHz frequency without solar cell and with solar cell. The proposed design provides the conversion of light energy to electric energy. The ...

The presence of a feeding gap in the antenna can help to collect the solar power, and then DC power is produced by rectifying the oscillated AC current with the aid of a specific diode ...

In this paper, we try to find the best solution for our energy harvesting application by designing an efficient optical antenna which receives the solar radiation and converts it from AC to ...

A tiny slot was etched from the solar cell to develop an ultra-low-profile solar-cell-integrated antenna. This tiny slot increases the form factor due to the small clearance area from the ...

The use of optical antennas for solar energy harvesting has received significant interest as they represent a viable alternative to the traditional energy harvesting technologies. Economical ...

A single-port dual-band antenna integrated with solar cells is reported for the 2.4/5-GHz wireless local area network (WLAN) applications. Thirty solar cells are adopted and integrated into ...

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An ultra-wideband antenna with solar cells is presented for low-carbon wireless communication. Four solar cells are introduced for the radiation structure with a solar cell coverage of ...

A 5×5 solar cell array is integrated with an antenna radiation aperture for 5G low-carbon communication. Leveraging the distinct properties of the inductor in DC and RF bands, surface ...

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