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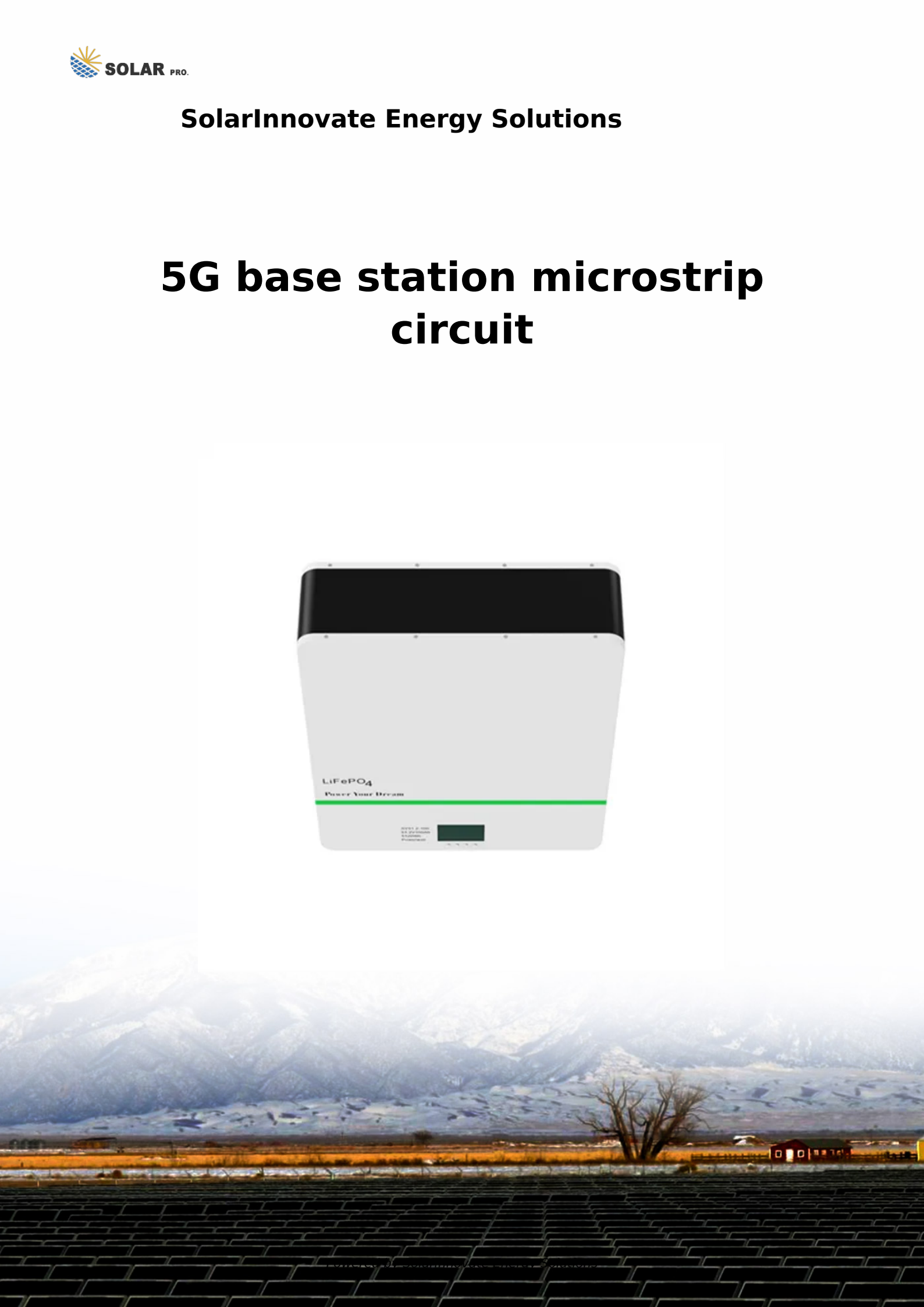
5G base station microstrip circuit



Overview

Is a microstrip patch antenna compatible with 5G?

Within a few years of its launch, 4G has now become primeval. Further, the need for the fifth generation of communication network is intensively being realized. In this paper, we design and simulate a microstrip patch antenna compatible with 5G communications. The antenna works in Extremely High Frequency (EHF) range at 43.7GHz.

Is microstrip antenna a good choice for 5G & B5G?

Moreover, wide-band high gain Microstrip antenna (MSA) for 5G and B5G (beyond 5G) have drawn a lot of exposure on latest research because of its improved bandwidth features, low profile, and affordability [4, 5].

Can a meta surface microstrip patch antenna reshape 5G radiation patterns?

The 5G technology at lower bandwidths is inflexible, hence the metamaterial structures are proposed for reshaping the radiation patterns. In this paper, we describe a meta surface low-profile microstrip patch antenna for 5G wireless sensor communications.

Is a low-profile meta-surface microstrip radiator suitable for 5G wireless communications?

This article presents a low-profile meta surface microstrip radiator operating at 34 GHz with high performance for the operation of 5G wireless communications. The meta-surface radiator entails an improved patch that is present between the 4 × 4 proportioned square ring meta-surface and a ground plane.

Why should a 5G antenna have a meta surface?

However, it has been suggested that antenna design with a meta surface improves the bandwidth, the low-profile antenna's radiation performance, and circular polarization is the key component to designing a 5G antenna with

higher immunity .

How to increase the bandwidth of a 5G antenna?

The proposed antenna bandwidth would be increased using a rectangular patch with a slotted radiator. Moreover, the wideband operation to cover the 5G spectrum makes use of a lattice of a periodic layer of MTS square ring. With an appropriate axial ratio, the antenna displays a broad bandwidth for |S11| < −10, spanning from 28 to 41 GHz.

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