Dual base station backscatter communication architecture

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In this paper, we consider a multi-tag symbiotic radio backscatter system, where a multi-antenna source node transmits its own message to a multi-antenna destination, while ...

In this paper, we build a cooperative backscatter communication system in 2.4GHz and 3.5 GHz. A test platform including backscattering modulator, Microcontroller Unit (MCU) and receiver ...

Extending backscatter communication ranges can be realized using high gain retrodirective arrays and BFNs-based RFID architectures as presented in the previous section.

To understand encoding and data extraction, we demonstrate signal processing aspects that cover channel coding, interference, decoding, and signal detection schemes. Moreover, we ...

We first present the basic principles of ambient backscatter communications covering architecture, basic techniques, and primer knowledge of ambient signals. After that, ...

We present two different structures for backscatter nodes along with their corresponding transmission models for a DPAm system. Then, we explore a parallel backscatter mode that ...

Backscatter communication, by its nature, often involves distributed elements, especially in bistatic configurations where the radio frequency (RF) source and the receiver are separate ...

This article will introduce the state-of-the-art antenna design and radio frequency (RF) system integration for wire-lessly powered backscatter communications, covering both the node and ...

This system comprises a full-duplex base station (BS), a backscatter tag, and a user. The tag reflects the BS transmitted signal and provides data to the user. The BS extracts ...

To overcome these challenges, we introduce a bistatic broadband backscatter communication (BBBC) system, which equips the backscatter device (BD) with multiple antennas.

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