Dual base station backscatter communication architecture

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Generated on: 2026-04-27 20:44:14

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 the base unit.

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 ...

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

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

V. Conclusions This paper presented an energy-ecient resource allo-cation framework for uplink NOMA-enabled backscatter communication networks. The joint optimization of RF source ...

This paper presents the first a complete dual-polarization AmBC (DPAm) system model, which can extend AmBC into polarization diversity and improve the data-transmission rate of ...

Our system model takes into account the simultaneous operation of NOMA IoT users and the Backscatter Node (BN) in the presence of multiple EavesDroppers (EDs). The EDs in the ...

These analyses cover a range of scenarios, methods, and objectives, focusing on emerging B5G technologies, such as reconfigurable intelligent surfaces (RIS), visible light ...

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