

# **Research on intelligent radio technology based on OFDM platform**

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**Abstract:** In the context of the strong development of data transmission technology over wireless networks, this research focuses on exploring and optimizing transmission techniques based on Orthogonal Frequency Division Multiplexing (OFDM). The main objective is to build an efficient, stable, and secure communication system. The proposed method includes extensive theoretical analysis combined with experimental implementation to evaluate the performance of new OFDM solutions. The expected results of this research not only enhance the understanding of OFDM technology but also contribute significantly to the development of modern wireless communication systems, meeting the growing demands of the digital society.

**Keywords:** OFDM, Radio technology, Data transmission