论文

部分功率训练序列与OFDM承载数据的优化分离

刘 田, 唐友喜, 赵宏志, 宋丽英, 李少谦

电子科技大学通信抗干扰技术国家级重点实验室 成都 610054

摘要
在采用部分功率训练序列同步的OFDM系统中，接收到的OFDM承载的数据信号会受到部分功率训练序列的严重干扰。由于信道估计的误差，使得对训练序列的分离同样存在误差。本文给出了在频率选择性衰落信道中，一种优化的抑制训练序列对OFDM承载数据的干扰的方法。通过理论分析，给出了优化的训练序列对消因子。计算机仿真结果验证了理论分析的合理性。

关键词　正交频分复用　分离　训练序列　误比特率

分类号　TN911

Optimum Separation of OFDM Data and Partial Power Training Sequence in Frequency Selective Fading Channels

Liu Tian, Tang You-xi, Zhao Hong-zhi, Song Li-ying, Li Shao-qian

National Key Lab of Communication, UESTC, Chengdu 610054, China

Abstract
In Orthogonal Frequency-Division Multiplexing (OFDM) system, when using the partial power training sequence to synchronize, the received data signals will be seriously interfered by the training sequence. Due to the imperfect channel estimation, even if the training sequence separation technique is used, errors will also occur while using the inadequate knowledge of channel to perform the training sequence separation. This paper proposes an optimum method to suppress the interference from the training sequence to the data bearing OFDM symbols in frequency selective fading channels. A closed form formula for the optimized training sequence canceling factor is given by the theoretical analysis and its reasonability is verified by the simulation results.

Key words　OFDM　Separation　Training sequence　BER

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扩展功能

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