

论文

OFDM系统中一种改进的抗频偏加窗法

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摘要

该文提出了正交频分复用系统中一种改进的抗频偏接收端加窗的方法, 接收端在去除发送端附加的循环前缀后重新进行循环扩展, 然后进行奈奎斯特加窗, 并且窗函数不再限于具体的函数形式, 是经过优化的数值解。数值计算结果表明, 最优窗的抗频偏性能远好于其他窗函数。

关键词 [正交频分复用](#) [载频偏移](#) [奈奎斯特窗](#) [载波间干扰](#)

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An Improved Anti-frequency-offset Method by Windowing in OFDM Systems

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Abstract

An improved anti-frequency-offset method by windowing in OFDM systems is proposed. The cyclic prefix added at the transmitter side is first removed at the receiver, and then a new cyclic prefix is appended, finally the "new" signal is windowed by a Nyquist window, which is optimized numerical solution. Numerical results show that the anti-frequency-offset capability of the optimized window is much better than other windows.

Key words [Orthogonal Frequency Division Multiplexing \(OFDM\)](#) [Carrier frequency offset](#) [Nyquist window](#) [Inter-Carrier Interference \(ICI\)](#)

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