论文

连续相位调制信号的二阶循环平稳特性分析

张仔兵, 李立萍, 肖先赐

电子科技大学电子工程学院 成都 610054

摘要
连续相位调制(CPM)信号以其恒包络和优良的频谱特性在现代卫星通信和移动通信中越来越受到人们的重视，然而这一大类调制信号的循环平稳特性却较少有人关注。该文根据连续相位调制信号在不同调制指数下的基带循环谱，推导了其相应带通循环谱的表达式，并对这些表达式的详细分析，得出了不同调制指数情况下循环频率与载频、码元宽度和峰值频偏之间的关系式。仿真实验证明这些结论是正确的。

关键词　　连续相位调制　循环平稳　循环谱

分类号　　TN911.2

The Characteristic Analysis of Second Order Cyclostationarity of Continuous Phase Modulation Signal

Zhang Zi-bing, Li Li-ping, Xiao Xian-ci

Abstract
Continuous Phase Modulated (CPM) signals play a prominent role in modern satellite communication systems
and mobile communication systems due to their constant envelope property and bandwidth efficiencies. However, there was no much comprehensive reference concerning the cyclostationarity of the large family of CPM. In this paper, the general band-pass cyclic spectral representations of the continuous phase modulation are derived and analyzed in detail based on the analytical expression of the corresponding base-band cyclic spectra; as well, the relation between cyclic frequency and carrier frequency, code width, peak frequency deviation is obtained with the different modulation indexes. These conclusions are proved by the computer simulations.

Key words　　Continuous phase modulation　Cyclostationarity　Cyclic spectrum

DOI :

扩展功能

本文信息

▶ Supporting info
▶ PDF(350KB)
▶ [HTML全文](0KB)
▶ 参考文献[PDF]
▶ 参考文献

服务与反馈

▶ 把本文推荐给朋友
▶ 加入我的书架
▶ 加入引用管理器
▶ 复制索引
▶ Email Alert
▶ 文章反馈
▶ 浏览反馈信息

相关信息

▶ 本刊中 包含"连续相位调制"的相关文章
▶ 本文作者相关文章

· 张仔兵
· 李立萍
· 肖先赐