

特约稿

宽带实时频谱分析技术及其应用

陈曾平, 吴巨红, 宿绍莹, 郭仕剑

国防科技大学ATR国防科技重点实验室

摘要:

宽带实时频谱分析技术主要用于各类宽带辐射源信号的侦察、捕获与分析。本文分析了宽带条件下实时频谱分析面临的挑战, 重点分析了宽带实时频谱分析的概念、系统结构、实现原理以及关键技术, 介绍了相关技术在频谱监视以及信号侦察中的应用示例, 随着应用的深入以及一些新的理论方法的不断完善, 该技术在复杂宽带信号分析方面具有很好的应用前景。

关键词: 宽带实时频谱分析 频谱监视 信号侦察

The technology and application of wideband real-time spectrum analysis

CHEN Zeng-Ping, WU Ju-Hong, AU Shao-Ying, GUO Shi-Jian

ATR Key Lab., National University of Defense Technology, Changsha

Abstract:

The technology of wideband real-time spectrum analysis focuses on the effective discovery, capture and detection of signal with the large bandwidth and the complex modulation. This paper first analysis the challenge of wideband real-time spectrum analysis(RTSA), then highlights the conception of technology of wideband real-time spectrum analysis, general system architecture, basic principle and key technologies. At the third section of the paper, some applications are provided. Finally, with the deepening application on signal monitoring and detection, and with supplement of some new theoretical methods, wideband real-time spectrum analysis should be promoting in wide area.

Keywords: wideband real-time spectrum analysis, spectrum monitoring, signal detection

收稿日期 2011-11-17 修回日期 网络版发布日期 2012-02-25

DOI:

基金项目:

通讯作者:

作者简介:

作者Email: artchen@sina.com

参考文献:

本刊中的类似文章

文章评论

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(3857KB)
- ▶ [HTML全文]
- ▶ 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
- ▶ 引用本文
- ▶ Email Alert
- ▶ 文章反馈
- ▶ 浏览反馈信息

本文关键词相关文章

- ▶ 宽带实时频谱分析
- ▶ 频谱监视
- ▶ 信号侦察

本文作者相关文章

- ▶ 陈曾平
- ▶ 吴巨红
- ▶ 宿绍莹
- ▶ 郭仕剑

PubMed

- ▶ Article by Chen, C. B.
- ▶ Article by Tun, J. G.
- ▶ Article by Qi, C. Y.
- ▶ Article by Guo, S. J.

反  
馈  
人

邮箱地址

反馈标题	<input type="text"/>	验证码	<input type="text" value="3487"/>
------	----------------------	-----	-----------------------------------

Copyright by 信号处理