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Title: **EP0936749A1: Adaptive receiver for CDMA communication system**[\[German\]](#)
[\[French\]](#)
[\[Derwent Title\]](#)

Country: EP European Patent Office (EPO)
Kind: A1 Publ. of Application with search report ¹

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IPC Code: Advanced: [H04B 1/707](#); [H04J 11/00](#);
 Core: more...
 IPC-7: [H04B 1/707](#);

ECLA Code: [H04B1/707](#);

Priority Number: 1998-02-11 [FR199800001604](#)

Abstract: An adaptive signal receiver comprising at least one blind detection unit arranged to be robust to asynchronous multiple access interference (MAI). The useful signal is detected using a user signature sequence comprised of a fixed term and a complex adaptive part having a length that extends over a number of samples within a defined observation window. Provision is made for updating automatically and periodically the complex adaptive part of the signature sequence.

INPADOC Legal Status: [Show legal status actions](#) Buy Now: [Family Legal Status Report](#)

Designated Country: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Family: [Show 6 known family members](#)

First Claim: [Show all claims](#)
 1. An adaptive receiver for CDMA signals, comprising a blind adaptive detector for detecting symbols in an incoming data stream using a user signature sequence, wherein said user signature sequence is comprised of a fixed term C_1 and a complex adaptive part $X_1(r)$ having a predetermined length that extends over a number of samples of the incoming data stream, said complex adaptive part being updated automatically and periodically after every interval spanning over one symbol or a plurality of symbols.

Description
[Expand description](#)

+ Field of the invention

The present invention relates to the field of Code Division Multiple Access (CDMA) communications with direct sequence/spread spectrum (DS/SS) modulated signals. It is concerned in particular with a novel adaptive signal receiver for CDMA communication systems.

+ Background of the invention

+ Summary of the Invention

+ Brief Description of the Drawings

+ Description of Exemplary Embodiments of the Invention

+ The CDMA Signal Format

+ The Select and Add Architecture



[High Resolution](#)

[Low Resolution](#)

42 pages

- + Error signal truncation effects
- + The Linear Combiner Architecture
- + EC-BAID Architectures Summary
- + Baseline Architecture
- + "Overlap and Add" Architecture
- + "Select and Add" Architecture
- + The Linear Combiner Architecture
- + Fading performance
- + Satellite Path Diversity
- + EC-BAID Application to Multi-rate CDMA
- + EC-BAID Applicability to Quasi-Random CDMA
- + EC-BAID Applicability to Frequency Selective Channels

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Buy PDF	Patent	Pub.Date	Inventor	Assignee	Title
	US7400692	2008-07-15	Reznik; Alexander	InterDigital Technology Corporation	Telescoping window based equalization
	US7376175	2008-05-20	Oates; John H.	Mercury Computer Systems, Inc.	Wireless communications systems and methods for cache enabled multiple processor based multiple user detection
	US7327780	2008-02-05	Oates; John H.	Mercury Computer Systems, Inc.	Wireless communications systems and methods for multiple operating system multiple user detection
	US7260076	2007-08-21	Kowalewski; Frank	Robert Bosch GmbH	Method and device for transmitting data
	US7248623	2007-07-24	Oates; John H.	Mercury Computer Systems, Inc.	Wireless communications systems and methods for short-code multiple user detection
	US7218668	2007-05-15	Oates; John H.	Mercury Computer Systems, Inc.	Wireless communications systems and methods for virtual user based multiple user detection utilizing vector processor generated mapped cross-correlation matrices
	US7210062	2007-04-24	Oates; John H.	Mercury Computer Systems, Inc.	Wireless communications systems and methods for nonvolatile storage of operating parameters for multiple processor based multiple user detection
	US7177344	2007-02-13	Oates; John H.	Mercury Computer Systems, Inc.	Wireless communication systems and methods for long-code communications for regenerative multiple user detection involving implicit waveform subtraction
	US7164706	2007-01-16	Oates; John H.	Mercury Computer Systems, Inc.	Computational methods for use in a short-code spread-spectrum communications system
	US7139306	2006-11-21	Oates; John H.	Mercury Computer Systems, Inc.	Wireless communication systems and methods for long-code communications for regenerative multiple user detection involving pre-maximal combination matched filter outputs
	US7110431	2006-09-19	Oates; John H.	Mercury Computer Systems, Inc.	Hardware and software for performing computations in a short-code spread-spectrum communications system
	US7110437	2006-09-19	Oates; John H.	Mercury Computer Systems, Inc.	Wireless communications systems and methods for direct memory access and buffering of digital signals for multiple user detection
					Wireless communications

 US7110440	2006-09-19	Oates; John H.	Mercury Computer Systems, Inc.	systems and methods for multiple processor based multiple user detection
 US7099374	2006-08-29	Oates; John H.	Mercury Computer Systems, Inc.	Wireless communication systems and methods for long-code communications for regenerative multiple user detection involving matched-filter outputs
 US7065125	2006-06-20	Miller; Mark J.	Viasat, Inc.	Method and apparatus for multiple access over a communication channel
 US6847688	2005-01-25	Molnar; Karl James	Ericsson Inc.	Automatic frequency control systems and methods for joint demodulation
 US6810073	2004-10-26	Karlsson; Jonas	Telefonaktiebolaget LM Ericsson (publ)	Method and system for interference cancellation using multiple filter sets and normalized filter adaptation

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