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**Title:** **EP0936749A1: Adaptiver Empfänger für ein CDMA Nachrichtenübertragungssystem**[\[English\]](#)[\[French\]](#)  
[\[ Derwent Title \]](#)

**Country:** EP European Patent Office (EPO)  
**Kind:** A1 Publ. of Application with search report <sup>i</sup>

**Inventor:** **De Gaudenzi, Riccardo;**  
**Giannetti, Fillippo;**  
**Romero Garcia, Javier;**  
**Luise, Marco;**  
**Fanucci, Luca;**  
**Letta, Edoardo;**

**Assignee:** **AGENCE SPATIALE EUROPEENNE**  
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**Published / Filed:** **1999-08-18** / 1999-02-05

**Application Number:** **EP1999000870023**

**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**  
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### + 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



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42 pages

- + The Select and Add Architecture
- + 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

 Forward  
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Buy PDF	Patent	Pub.Date	Inventor	Assignee	Title
	<a href="#">US7400692</a>	2008-07-15	Reznik; Alexander	InterDigital Technology Corporation	<a href="#">Telescoping window based equalization</a>
	<a href="#">US7376175</a>	2008-05-20	Oates; John H.	Mercury Computer Systems, Inc.	<a href="#">Wireless communications systems and methods for cache enabled multiple processor based multiple user detection</a>
	<a href="#">US7327780</a>	2008-02-05	Oates; John H.	Mercury Computer Systems, Inc.	<a href="#">Wireless communications systems and methods for multiple operating system multiple user detection</a>
	<a href="#">US7260076</a>	2007-08-21	Kowalewski; Frank	Robert Bosch GmbH	<a href="#">Method and device for transmitting data</a>
	<a href="#">US7248623</a>	2007-07-24	Oates; John H.	Mercury Computer Systems, Inc.	<a href="#">Wireless communications systems and methods for short-code multiple user detection</a>
	<a href="#">US7218668</a>	2007-05-15	Oates; John H.	Mercury Computer Systems, Inc.	<a href="#">Wireless communications systems and methods for virtual user based multiple user detection utilizing vector processor generated mapped cross-correlation matrices</a>
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	<a href="#">US7164706</a>	2007-01-16	Oates; John H.	Mercury Computer Systems, Inc.	<a href="#">Computational methods for use in a short-code spread-spectrum communications system</a>
	<a href="#">US7139306</a>	2006-11-21	Oates; John H.	Mercury Computer Systems, Inc.	<a href="#">Wireless communication systems and methods for long-code communications for regenerative multiple user detection involving pre-maximal combination matched filter outputs</a>
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	<a href="#">US6810073</a>	2004-10-26	Karlsson; Jonas	Telefonaktiebolaget LM Ericsson (publ)	<a href="#">Method and system for interference cancellation using multiple filter sets and normalized filter adaptation</a>

 Other Abstract Info:

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