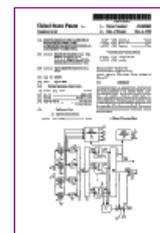


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Buy Now:  PDF | [File History](#) | [Other choices](#)Tools: [Citation Link](#) | Add to Work File: View: [Expand Details](#) | [INPADOC](#) | Jump to:  [Email this to a friend](#)**Title:** **US5818868: Direct-sequence spread-spectrum receiver including code acquisition and detection using an autoadaptive threshold**[\[Derwent Title \]](#)**Country:** **US** United States of America**Inventor:** **Gaudenzi, Riccardo De**; Leiden, Netherlands
Fanucci, Luca; Noordwijk, Netherlands
Giannetti, Filippo; Buti, Italy
Luise, Marco; Livorno, Italy**Assignee:** **Agence Spatiale Europeenne**, Paris, France
other patents from [AGENCE SPATIALE EUROPEENNE \(10940\)](#)
(approx. 136)
[News, Profiles, Stocks and More about this company](#)[High Resolution](#)[Low Resolution](#)**13 pages****Published / Filed:** **1998-10-06** / 1996-04-09**Application Number:** **US1996000629852****IPC Code:** Advanced: [H03H 21/00](#); [H04B 1/707](#);
Core: more...
IPC-7: [H04B 1/707](#);**ECLA Code:** **H04B1/707A7**; H04B1/707A3C;**U.S. Class:** **Current:** [375/152](#); [375/E01.004](#); [375/E01.012](#);
Original: [375/206](#); [375/207](#);**Field of Search:** [375/200](#),206,207,343,367**Priority Number:** 1995-04-14 **FR1995000004516****Abstract:** The invention relates to the recognition of a spread spectrum data signal transmitted in code division multiple access communication systems. The invention provides a receiver whose code acquisition and detection circuit includes circuitry configured for detecting the signal received by using an audio adaptive detection threshold generated locally from the output signal of the detection circuit itself. The invention is used for example, in terrestrial or satellite radio communication systems.**Attorney, Agent or Firm:** **Seidel, Gonda, Lavorgna & Monaco, PC** ;**Primary / Asst. Examiners:** **Chin, Stephen**; Gluck, Jeffrey W.**INPADOC Legal Status:** [Show legal status actions](#) **Buy Now:** [Family Legal Status Report](#)**Designated Country:** DE ES FI GB IT SE**Family:** [Show 12 known family members](#)**First Claim:** What is claimed is: 1. A receiver for a spread spectrum signal produced by modulating an electrical signal with a binary code, the receiver comprising:

- a sampling circuit for sampling a limited-band signal;
- a code acquisition and signal detection circuit connected to the sampling circuit; and
- a signal demodulator connected to the code acquisition and signal detection circuit,
- the code acquisition and signal detection circuit comprising:
 - means configured so as to recognize the presence of received signals by comparing a maximum value

representative of significant samples, $Z_1(h), \dots, Z_L(h)$ with an autoadaptive threshold, the autoadaptive threshold being generated by multiplying an average value of the significant samples and a fixed multiplication factor and producing a signal having a first state when the maximum value is greater than the autoadaptive threshold, indicating the presence of a signal, and a second state when the maximum value is less than the autoadaptive threshold, indicating the absence of a signal.

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Buy PDF	Patent	Pub.Date	Inventor	Assignee	Title
	US4007330	1977-02	Winters	Bunker Ramo Corporation	Method and apparatus for demodulation of relative phase modulated binary data
	US4943977	1990-07	Uchida et al.	Clarion Co., Ltd.	Correlation pulse generating circuit in a spread spectrum receiver
	US5263050	1993-11	Sutterlin et al.	Echelon Corporation	Adaptive threshold in a spread spectrum communications system
	US5440597	1995-08	Chung et al.	Nokia Mobile Phones Ltd.	Double dwell maximum likelihood acquisition system with continuous decision making for CDMA and direct spread spectrum system

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	EP0584912	1994-03	H04B 1/707	NOKIA MOBILE PHONES LTD.	Receiver using a matched filter and a median filter
	DE3922972	1990-01	H04B 1/707	Clarion Co., Ltd., Tokio/Tokyo, JP	Spread-Spektrum-Empfaenger

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