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Title: EP0738049B1: Spread spectrum signal receiver using an autoadaptive detection threshold [\[German\]](#) [\[French\]](#)

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Kind: B1 Patent ⁱ (See also: [EP0738049A1](#))

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IPC Code: Advanced: [H04B 1/707](#);

Core: more...

IPC-7: [H04B 1/707](#);

ECLA Code: H04B1/707A7; H04B1/707A3C;

Priority Number: 1995-04-14 [FR1995000004516](#)

Abstract: [From equivalent [EP0738049A1](#)] Spread=spectrum DS-CDMA receiver using adaptive detection threshold The receiver includes acquisition and detection circuits (3) which search a received sound signal and compare a value representative of significant samples (Z1(h)..Zn(h)) with a self-adaptive threshold. The threshold is generated from a mean sample value by multiplication with a fixed factor (lambda) to produce a first signal (SP) when the threshold is exceeded or alternately the absence of the signal. A code adapted filter (11) provides correlated samples (Sp.p...Sq.q) of the input signal (rp(k)...rq(k)). Squaring and adding circuits (12,13) process the samples non-coherently to provide samples (e(k)) for evaluation (15) of the mean of its components pi(h), in a sliding equalisation window of predetermined width to determine (16) a representative value. [\[French\]](#)

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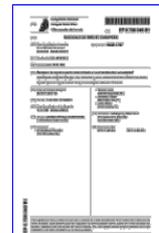
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Legal Status: DE ES FI GB IT SE

Designated Country: [Show 12 known family members](#)

First Claim: [Show all claims](#)

1. A receiver for a spread spectrum signal produced by modulating an electrical signal with a binary code, which receiver comprises a sampling circuit (2) for sampling the limited-band signal, a code acquisition and signal detection circuit (3) and a signal demodulator (4), **characterized in that** the code acquisition and signal detection circuit (3) comprises means (16) configured so as to recognize the received data signal by comparing the maximum value (max) representative of significant samples (Z1(h), ... ZL(h)) selected with an auto-adaptive threshold (SATH) generated from the average value (AVER) of the samples by multiplying said average value (AVER) by a fixed multiplication factor (Lambda) so as to produce a signal (SP) having a first state indicating the presence of a signal when the aforesaid maximum value (MAX) is greater than said auto-adaptive threshold (SATH) and a



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Description

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second state indicating the absence of any signal in the contrary case.

[\[German\]](#) [\[French\]](#)

La présente invention se rapporte aux systèmes de communications à accès multiple par division de code à spectre étalé à séquence directe et en particulier aux récepteurs de signal à spectre étalé utilisé dans ces systèmes. L'invention concerne plus particulièrement la reconnaissance du signal et l'acquisition du code utilisé dans la modulation du signal transmis.

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References:

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Buy PDF	Patent	Pub.Date	Inventor	Assignee	Title
	DE19806684C2	2002-05-23	Frank, Colin D.	Motorola Inc. (n.d.Ges.d. Staates Delaware)	Dienstdetektorschaltung und Verfahren

Other Abstract

Info:

None



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