Title (en)

NARROW-BAND INTERFERENCE REJECTING SPREAD SPECTRUM RADIO SYSTEM AND METHOD

Title (de)

VERFAHREN UND SYSTEM ZUR UNTERDRÜCKUNG VON SCHMALBANDINTERFERENZ IN EINEM SPREIZSPEKTRUM SYSTEM

Title (fr)

SYSTEME RADIO A ETALEMENT DU SPECTRE A REJET DES BRUITS BANDE ETROITE ET METHODE AFFERENTE

Publication

EP 1114532 A1 20010711 (EN)

Application

EP 99938699 A 19990714

Priority

- US 9914146 W 19990714
- US 9283998 P 19980714

Abstract (en)

[origin: WO0004657A1] A spread spectrum receiver and method having narrow-band interference rejection of narrow-band jamming signals using digital signal processing frequency domain techniques. The method performed in the receiver includes transforming the received signal to a frequency domain signal and identifying narrow-band interference components in the frequency domain signal; suppressing the identified narrow-band interference components by excising the identified narrow-band interference components from the frequency domain signal to produce an interference excised signal in the frequency domain, and storing in a memory frequencies corresponding to the identified narrow-band interference components; synchronizing a receiver code to a transmitter code in the frequency domain using the interference excised signal; generating coefficients for a time domain filter that includes notches at the frequencies corresponding to the excised narrow-band interference components and that jointly despreads and rejects narrow-band interference from the excised frequencies; applying the coefficients generated in the preceding step to the time domain filter; and despreading and filtering in real time in the time domain the received signal using the applied coefficients.

IPC 1-7

H04B 15/00; H04B 1/10; H04K 1/00; H04L 27/30; H04L 7/00

IPC 8 full level

H04B 1/10 (2006.01); **H04B 1/707** (2011.01)

CPC (source: EP)

H04B 1/1036 (2013.01); **H04B 1/7102** (2013.01)

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 0004657 A1 20000127; AU 5312499 A 20000207; CA 2337409 A1 20000127; EP 1114532 A1 20010711; EP 1114532 A4 20030604

DOCDB simple family (application)

US 9914146 W 19990714; AU 5312499 A 19990714; CA 2337409 A 19990714; EP 99938699 A 19990714