Title (en)

METHOD AND APPARATUS FOR TIMING CONTROL IN DIGITAL COMMUNICATION SYSTEMS

Title (de)

VERFAHREN UND GERÄT FÜR ZEITSTEUERUNG IN DIGITALEN KOMMUNIKATIONSSYSTEMEN

Title (fr)

PROCEDE ET APPAREIL DE COMMANDE DE SYNCHRONISATION DANS DES SYSTEMES DE COMMUNICATION NUMERIQUE

Publication

EP 1222757 A1 20020717 (EN)

Application

EP 00982682 A 20001017

Priority

- US 0041221 W 20001017
- US 42282999 A 19991021

Abstract (en)

[origin: WO0129990A1] The present invention provides an apparatus and method for detecting the relative time of arrival of different signals at a single receiver from different respective transmitters, and causing the different respective transmitters to alter the time that they transmit their signals so that the time of arrival of signals from different transmitters is within a predetermined period. The present invention uses either a closed loop timing control, a GPS based timing control, or an open loop based timing control, to determine the time that signals from different transmitters need to be altered in order to obtain time of arrival for different signals within the predetermined period. As a result of the arriving signals being "semi-synchronous", any detection algorithms taking advantage of time synchronism, for example multi-user detection or interference rejection, can be much more effective in signal detection for the data transmitted from multiple transmitters to a single receiver.

IPC 1-7

H04B 7/26

IPC 8 full level

H04B 7/26 (2006.01); H04B 1/707 (2006.01)

CPC (source: EP)

H04W 56/0005 (2013.01); **H04W 56/0045** (2013.01); **H04W 56/007** (2013.01); **H04W 56/009** (2013.01); H04B 2201/709709 (2013.01)

Citation (search report)

See references of WO 0129990A1

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 0129990 A1 20010426; AU 1968101 A 20010430; CA 2388040 A1 20010426; EP 1222757 A1 20020717; IL 149246 A0 20021110; JP 2003528483 A 20030924

DOCDB simple family (application)

US 0041221 W 20001017; AU 1968101 A 20001017; CA 2388040 A 20001017; EP 00982682 A 20001017; IL 14924600 A 20001017; JP 2001531227 A 20001017