Title (en)

METHOD FOR ESTIMATING FREQUENCY/TIME OFFSET AND APPARATUS USING THE SAME IN OFDM COMMUNICATION SYSTEM

Title (de)

VERFAHREN ZUR SCHÄTZUNG VON FREQUENZ-/ZEITOFFSET UND DIESES VERWENDENDE VORRICHTUNG IN EINEM OFDM-KOMMUNIKATIONSSYSTEM

Title (fr)

PROCEDE D'ESTIMATION DU DECALAGE TEMPS/FREQUENCE ET APPAREIL UTILISANT CE PROCEDE DANS UN SYSTEME DE COMMUNICATION OFDM

Publication

EP 1825625 A4 20130102 (EN)

Application

EP 05780670 A 20050721

Priority

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- KR 20040105798 A 20041214

Abstract (en)

[origin: WO2006065016A1] Provided is a frequency and time offset estimation method and apparatus using the same for an orthogonal frequency division multiplexing (OFDM) communication system. The invention can establish frequency and time synchronization while improving data transmission rate in the OFDM communication system by estimating a time offset and a decimal of frequency offset using a first OFDM symbol and a Cyclic Prefix (CP) of an OFDM frame and compensating a received signal based thereon in a time domain, and estimating an integer of the frequency offset using the compensated signal and again compensating the compensated received signal based on the estimated integer of the frequency offset in a frequency domain.

IPC 8 full level

H04J 11/00 (2006.01); **H04L 27/26** (2006.01)

CPC (source: EP KR US)

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Citation (search report)

- [YA] US 2003026295 A1 20030206 - BAUM KEVIN L [US], et al
- [A] US 2004141457 A1 20040722 - SEO BO-SEOK [KR], et al
- [YA] VAN DE BEEK J-J ET AL: "ML ESTIMATION OF TIMING AND FREQUENCY OFFSET IN MULTICARRIER SYSTEMS", INTERNET CITATION, April 1996 (1996-04-01), XP003010945, Retrieved from the Internet <URL:http://www.sm.luth.se/csee/sp/research/report/bsb96r.pdf> [retrieved on 20070101]
- See references of WO 2006065016A1

Cited by

CN108183841A

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