

Title (en)
METHODS AND APPARATUS FOR CARRIER FREQUENCY OFFSET ESTIMATION AND CARRIER FREQUENCY OFFSET CORRECTION

Title (de)
VERFAHREN UND VORRICHTUNG FÜR TRÄGERFREQUENZVERSATZSCHÄTZUNG UND TRÄGERFREQUENZVERSATZKORREKTUR

Title (fr)
PROCÉDÉS ET APPAREIL POUR ESTIMATION DE DÉCALAGE DE FRÉQUENCE PORTEUSE ET CORRECTION DE DÉCALAGE DE FRÉQUENCE PORTEUSE

Publication
EP 2612478 A4 20171220 (EN)

Application
EP 10856567 A 20100830

Priority
CN 2010076460 W 20100830

Abstract (en)
[origin: WO2012027880A1] Methods and apparatus are provided for synchronizing a wireless receiver with a transmitter including methods and apparatus for computing estimated Fractional Carrier Frequency Offset (FCFO). The wireless receiver receives a signal that includes an Orthogonal Frequency Division Multiplexing (OFDM)/Orthogonal Frequency Division Multiple Access (OFDMA) symbol that corresponds to a Primary Synchronization Channel (P-SCH) that is encoded or modulated in accordance with a constant amplitude zero auto-correlation (CAZAC) sequence. The wireless receiver generates an estimated FCFO value by computing a differential phase of a cross-correlation between a first-half of the received time-domain OFDM/OFDMA symbol and a second-half of the received time-domain OFDM/OFDMA symbol.

IPC 8 full level
H04L 27/26 (2006.01); **H04L 27/28** (2006.01)

CPC (source: EP)
H04L 27/2659 (2013.01); **H04L 27/266** (2013.01); **H04L 27/2662** (2013.01); **H04L 27/2671** (2013.01); **H04L 27/2672** (2013.01); **H04L 27/2675** (2013.01); **H04L 5/0007** (2013.01)

Citation (search report)
• [IA] WO 2004059936 A1 20040715 - NOKIA CORP [FI], et al
• [IA] WO 2005041448 A1 20050506 - KOREA ELECTRONICS TELECOMM [KR], et al
• [IA] SU Y T ET AL: "Pilot-Assisted Maximum-Likelihood Frequency-Offset Estimation for OFDM Systems", IEEE TRANSACTIONS ON COMMUNICATIONS, IEEE SERVICE CENTER, PISCATAWAY, NJ. USA, vol. 52, no. 11, 1 November 2004 (2004-11-01), pages 1997 - 2008, XP011122101, ISSN: 0090-6778, DOI: 10.1109/TCOMM.2004.836555
• [A] VIKAS PALIWAL ET AL: "Cell Search Procedures in LTE Systems", 1 January 2005 (2005-01-01), XP055424347, Retrieved from the Internet <URL:https://pdfs.semanticscholar.org/fbab/5beb64534819c2fee7919c469f301ba71b02.pdf> [retrieved on 20171113]
• [A] SCHMIDL T M ET AL: "ROBUST FREQUENCY AND TIMING SYNCHRONIZATION FOR OFDM", IEEE TRANSACTIONS ON COMMUNICATIONS, IEEE SERVICE CENTER, PISCATAWAY, NJ. USA, vol. 45, no. 12, 1 December 1997 (1997-12-01), pages 1613 - 1621, XP000731796, ISSN: 0090-6778, DOI: 10.1109/26.650240
• See references of WO 2012027880A1

Cited by
CN105743836A; WO2020186424A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)
WO 2012027880 A1 20120308; CN 103081425 A 20130501; CN 103081425 B 20160803; EP 2612478 A1 20130710; EP 2612478 A4 20171220

DOCDB simple family (application)
CN 2010076460 W 20100830; CN 201080068784 A 20100830; EP 10856567 A 20100830