

Title (en)  
ESTIMATING A POSITION OF A WIRELESS MOBILE DEVICE WITH RESPECT TO ONE OR MORE BASE STATION

Title (de)  
SCHÄTZUNG EINER POSITION EINER DRAHTLOSEN BEDIENEREINRICHTUNG IN BEZUG AUF EINE ODER MEHRERE BASISSTATIONEN

Title (fr)  
ESTIMATION DE LA POSITION D UN DISPOSITIF MOBILE SANS FIL PA R RAPPORT A UNE OU A PLUSIEURS STATIONS DE BASE POUR TELEPHONES CELLULAIRES

Publication  
**EP 1695566 A4 20110511 (EN)**

Application  
**EP 04782073 A 20040824**

Priority  
• US 2004027505 W 20040824  
• US 52433203 P 20031121

Abstract (en)  
[origin: WO2005057954A1] A first method for estimating a location of an MS (MS) in a communication network having a plurality of BTSs (BTSs) includes determining an area in which the MS can communicate with only one of the BTSs. A mean location within the area is calculated and used as the estimate. A second method includes determining an area in which the MS is within an overlapping coverage area of two of the BTSs. A locus of distance points at which a relative time difference of arrival of signals received by the MS from each of the BTSs is constant is determined. A point at which a line having an angle theta based upon relative signal power at the MS between first and second sectors of one of the BTSs intersects the locus is determined, and used as the estimate of the MS location.

IPC 8 full level  
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CPC (source: EP KR)  
**H04B 7/0491** (2013.01 - KR); **H04B 7/216** (2013.01 - KR); **H04W 64/00** (2013.01 - EP KR)

Citation (search report)  
• [XY] EP 1030531 A1 20000823 - LUCENT TECHNOLOGIES INC [US]  
• [Y] US 6249252 B1 20010619 - DUPRAY DENNIS J [US]  
• [Y] US 2002002066 A1 20020103 - PALLONEN JORMA [FI]  
• [A] WO 02063329 A1 20020815 - NOKIA CORP [FI], et al  
• See references of WO 2005057954A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005057954 A1 20050623**; AU 2004297926 A1 20050623; AU 2008203003 A1 20080731; CA 2546370 A1 20050623; CN 102685884 A 20120919; CN 102685884 B 20150318; CN 1883210 A 20061220; CN 1883210 B 20120516; EP 1695566 A1 20060830; EP 1695566 A4 20110511; EP 2574124 A2 20130327; EP 2574124 A3 20161221; IL 175652 A0 20060905; JP 2007512765 A 20070517; JP 2011019254 A 20110127; JP 2012029304 A 20120209; JP 2012108136 A 20120607; JP 5265631 B2 20130814; KR 100863917 B1 20081016; KR 20060096096 A 20060905

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**US 2004027505 W 20040824**; AU 2004297926 A 20040824; AU 2008203003 A 20080708; CA 2546370 A 20040824; CN 200480034373 A 20040824; CN 201210053544 A 20040824; EP 04782073 A 20040824; EP 12198035 A 20040824; IL 17565206 A 20060516; JP 2006541131 A 20040824; JP 2010178018 A 20100806; JP 2011180435 A 20110822; JP 2011280052 A 20111221; KR 20067012224 A 20060620