

Title (en)
LOCATION SYSTEM FOR DIGITAL MOBILE TELEPHONY

Title (de)
LOKALISIERUNGSSYSTEM FÜR DIGITALES MOBILES TELEFONGERÄT

Title (fr)
SYSTEME DE LOCALISATION EN TELEPHONIE MOBILE NUMERIQUE

Publication
EP 1005773 A1 20000607 (EN)

Application
EP 98940367 A 19980824

Priority
• GB 9802538 W 19980824
• GB 9717844 A 19970823

Abstract (en)
[origin: WO9911086A1] A digital cellular radio communication network, for example, a GSM or CDMA network, including a plurality of mobile stations; a number of base stations (BSs), each one of which is adapted to communicate with a number of mobile stations and has a known fixed geographic location in the network; and location means for determining the geographic location of a mobile station in the network. The location means includes at least one reference mobile station having a known geographic location in the network and which is adapted to receive signals broadcast by said base stations, and the received signals are used to determine the geographic location of a subscriber mobile station in the network. A mobile station includes means adapted to (a) identify, and measure the time of arrival of, the earliest arriving copy of a signal broadcast by a base station and received as a composite of plural copies, the time of arrival being measured relative to an internal time base of said mobile station, and (b) determine the relative timings of signals broadcast by a number of base stations. The relative timings of the signals are used to determine the geographic location of the mobile station in the network. The signals may be broadcast on a BCCH of each of the base stations, a BCCH signal conveying to a mobile station information concerning the broadcasting base station and the digital cellular radio communication network.

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H04Q 7/38

IPC 8 full level
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Citation (search report)
See references of WO 9911086A1

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