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[54] **METHOD AND APPARATUS FOR SYNCHRONIZING SUBSCRIBER EQUIPMENT WITH BASE STATIONS IN A CDMA RADIO NETWORK**

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[52] **U.S. Cl.** **370/332**; 370/335; 370/491

[58] **Field of Search** 370/18, 95.1, 95.3, 370/98, 110.4, 110.1, 320, 328, 331, 332, 333, 335, 342, 350, 491, 500, 503, 520, 527, 529; 375/200, 205; 455/31.1, 32.1, 33.1, 33.2, 54.1, 56.1

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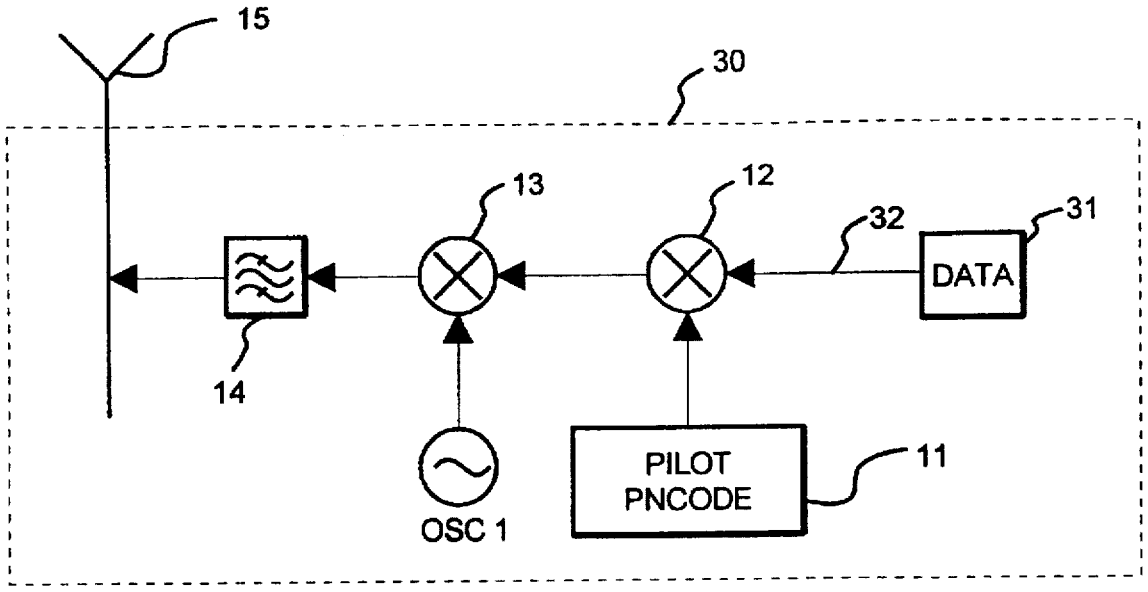
[57] **ABSTRACT**

A base station, a subscriber equipment, and a method for synchronizing the subscriber equipment with the transmission of the base station in a digital cellular radio network utilizing the CDMA multiple access method. In each cell of the network, at least one base station communicates with the subscriber equipment within its area, in which network the base station transmits a separate pilot channel provided with a predetermined spreading code. In order to facilitate the synchronization of the subscriber equipment, the base station transmits a data-modulated signal on the pilot channel.

11 Claims, 3 Drawing Sheets