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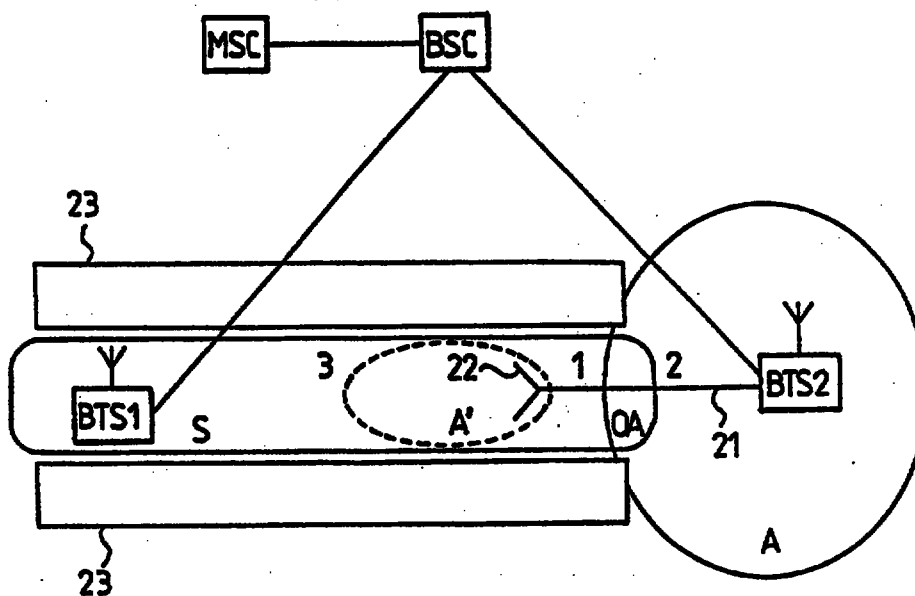


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(54) Title: CELLULAR MOBILE STATION SYSTEM



(57) Abstract

The invention relates to a cellular mobile station system wherein a handover decision is based on measuring downlink transmissions of a serving cell (S) and neighbouring cells (A) by a mobile station. Adjacent-cells are typically arranged to be partly overlapping (OA) so as to ensure there is a sufficient period of time for the reception and decoding of the downlink transmissions of the neighbouring cells, as well as for a handover decision. In some of the cells (S), there may be terrain obstacles, buildings, tunnels or the like obstacles (23) shadowing the downlink transmission of the neighbouring cell (A) so that overlapping (OA) is not sufficient between such a cell and a neighbouring cell. According to the invention, a repeater or an antenna (22) is provided for extending the coverage area (A') of the downlink transmission of the shadowed neighbouring cell (A) in such a cell (S) so as to allow an advanced transmission and decoding of the downlink transmission of the shadowed neighbouring cell.