INITIAL CELL SEARCH ALGORITHM

ABSTRACT

A system and method for establishing initial synchronization for the link between a UE and a base station in a communication network uses window exclusion logic in order to avoid a deadlock condition upon a detection of the wrong public land mobile network (PLMN). The communication signal is processed in a three step decision process. The first decision step (12) determines a chip offset of the strongest path detected over a frame of samples. In response to the first decision (12), the second step (14) generates a scrambling code group number and slot offset for retrieving the second synchronization code. The third decision step (16) retrieves a primary scrambling code in response to the code group number for synchronizing the UE to the base station.

Fig. 1