ABSTRACT

A wireless time division duplex communication system using code division multiple access has a base station and user equipments. The system communicates using communication bursts. Each communication burst has a unique channelization code and a midamble code. Each midamble code is mapped to a set of at least one channelization code. For each communication burst to be transmitted in a time slot from the base station, the midamble code mapped to that burst's channelization code is determined. Communication bursts are generated and transmitted in the time slot. Each burst has the determined midamble code for its channelization code. The user equipment receives the bursts and determines each received midamble code. The user equipment determines the channelization codes of the transmitted communication bursts based on in part a result of the determining of each received midamble code.

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