ABSTRACT

METHOD AND APPARATUS FOR IMPROVING DATA TRANSMISSION RELIABILITY IN A WIRELESS COMMUNICATIONS SYSTEM

Techniques for performing duplicate detection and re-ordering for a HARQ transmission are described. For duplicate detection, a receiver determines whether a decoded packet x for an ARQ channel y is a duplicate packet based on packet x and a prior decoded packet for ARQ channel y. For re-ordering, the receiver determines whether an earlier packet is still pending on any other ARQ channel based on prior decoded packets for the ARQ channels and forwards packet x only if there are no pending earlier packets. There are no pending earlier packets on another ARQ channel z if (1) a decoded packet was received on ARQ channel z at a designated time or later or (2) a decoded packet was not received on ARQ channel z within a time window from current time.

Figure 4