

Multiple Carrier Acknowledgment Signaling

Abstract

Acknowledgment signaling in a multiple carrier environment is enabled with a multiple carrier codebook having code words that jointly encode acknowledgment for at least two carriers. For an example embodiment, there is a method in a remote terminal for acknowledgment uplink signaling in a multiple-carrier mode. First, a code word is determined that jointly encodes acknowledgment signaling for at least two carriers from a multiple carrier codebook that is stored in the remote terminal. The multiple carrier codebook includes eight code words that are defined to have a single carrier codebook as a sub-codebook of the multiple carrier codebook, each code word of the eight code words having a length of ten. The multiple carrier codebook achieves a minimum Hamming distance of four among the eight code words. Second, an uplink signaling message that includes the determined code word is transmitted from the remote terminal to a wireless network node.

Figure 1