EFFICIENT AUTOMATIC REPEAT REQUEST METHODS AND APPARATUS

ABSTRACT

Different NAK signals are used to indicate different relative levels of success in regard to an unsuccessful attempt to decode a received signal. An ACK signal (534) is used in the case of successful decoding. The device which generated and transmitted the original encoded signal receives the NAK signal (526,530) and selects a portion of redundant information, e.g. additional error correction bits, to be transmitted based on the value of the NAK signal. If the NAK signal indicates a low level decoding success indicating a relatively large number of errors in the decoded signal, a large set of redundant information is selected and transmitted. If the NAK signal indicates a relatively successful decoding, e.g. relatively few errors, a small set of redundant information is selected and transmitted. Where a small set of redundant information is transmitted new information can be transmitted with the redundant information.

Fig. 5