

ABSTRACT

A polar code encoding method and an apparatus are provided and relate to the field of communication technologies, to enable polar codes to be constructed based on a same reliability sequence and a same first matrix for sequences of different quantities of information bits, thereby
 5 reducing hardware complexity and improving decoding performance. The method includes: mapping, based on a reliability sequence whose length is N , an information bit sequence whose length is k to k bits of a first sequence whose length is N , to obtain a second sequence including k information bit positions, x PC bit positions, and $N-k-x$ frozen bit positions; multiplying the
 10 second sequence by a first matrix to obtain a third sequence; and performing polar encoding to obtain a fourth sequence, where $k \leq K \leq N$, $1 \leq x$, K is a maximum value of the length of the information bit sequence, k , K , N , and x are all positive integers, there are all 0s below a diagonal of the first matrix, and all 1s on the diagonal, a column weight of a column corresponding to the
 15 PC bit position in the first matrix is greater than 1, a column weight of a column corresponding to the frozen bit position or the information bit position is equal to 1, and a quantity of columns whose column weights are greater than 1 is less than or equal to $N-K$.

(FIG.7)