

Abstract

The invention relates to a data processing apparatus and a data processing method as well as an encoding apparatus and an encoding method which can improve the tolerance to errors.

Of an LDPC code which is prescribed in the DVB-S.2 and has a code length of 64,800 and an encoding rate of $2/3$, m code bits are replaced, and the code bits after the replacement become symbol bits of b symbols. When m is 8 and b is 2, where the $i+1$ th bit from the most significant bit of 8×2 code bits and 8×2 symbol bits of two successive symbols are represented by b_i and y_i , respectively, replacement of allocating b_0 to y_{15} , b_1 to y_7 , b_2 to y_1 , b_3 to y_5 , b_4 to y_6 , b_5 to y_{13} , b_6 to y_{11} , b_7 to y_9 , b_8 to y_8 , b_9 to y_{14} , b_{10} to y_{12} , b_{11} to y_3 , b_{12} to y_0 , b_{13} to y_{10} , b_{14} to y_4 and b_{15} to y_2 . The present invention can be applied, for example, to a transmission system for transmitting an LDPC code and so forth.