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- (81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ,

(54) Title: COMMUNICATION METHOD BASED ON LDPC CODE, AND COMMUNICATION APPARATUS

(54) 发明名称: 一种基于LDPC码的通信方法和通信装置

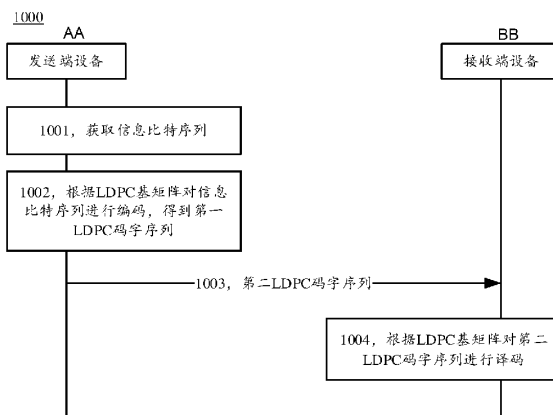


图 10

- 1001 Acquire an information bit sequence
1002 Encode the information bit sequence on the basis of an LDPC base matrix, so as to obtain a first LDPC codeword sequence
1003 Second LDPC codeword sequence
1004 Decode the second LDPC codeword sequence on the basis of the LDPC base matrix
AA Sending-end device
BB Receiving-end device

(57) Abstract: A communication method based on an LDPC code, and a communication apparatus. By means of row grouping and column grouping, an LDPC base matrix can be divided into a plurality of units having the same size, and the plurality of units comprise three types of units, i.e., a first unit, a second unit and a third unit, wherein the column weight of each column of the first unit is 1, the column weight of at least one column of the second unit is 1 and the column weight of the remaining columns is 0, and the column weight of each column of the third unit is 0. None of the column weights of columns of the first unit, the second unit and the

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third unit is greater than 1. Therefore, a receiving-end device can perform multi-QC block parallel decoding on a codeword sequence corresponding to each unit, without the occurrence of it being impossible to perform decoding, thereby facilitating an improvement in the decoding performance.

(57) 摘要: 一种基于LDPC码的通信方法和通信装置, 经过行分组和列分组, LDPC基矩阵可以被划分多个规模相同的单元, 多个单元包括第一单元、第二单元和第三单元三类, 其中, 第一单元的每列的列重为1, 第二单元的至少一个列的列重为1且剩余列的列重为0, 第三单元的每列的列重为0。第一单元、第二单元和第三单元的列的列重均不大于1, 因此接收端设备可以对每个单元对应的码字序列进行多QC块并行译码, 并且不会出现无法译码的情况, 有助于提高译码性能。