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(54) Title: COMMUNICATION METHOD AND APPARATUS

(54) 发明名称: 通信方法及装置

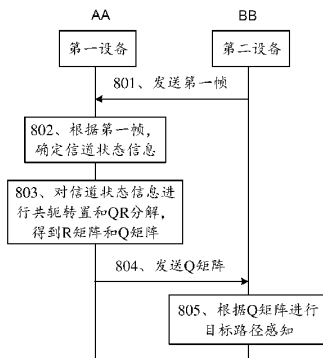


图 8

- 801 Send a first frame
802 Determine channel state information
according to the first frame
803 Perform conjugate transposition and QR
decomposition on the channel state
information to obtain an R matrix and a Q
matrix
804 Send the Q matrix
805 Perform target path sensing according to the
Q matrix
AA First device
BB Second device

(57) Abstract: The embodiments of the present application relate to the technical field of communications. Provided are a communication method and apparatus, which can reduce feedback overheads, retain relative phase information between sub-carriers and between pulses, and realize effective sensing. The method comprises: a first device determining channel state information according to a first frame, which is sent by a second device and is used for channel measurement, performing conjugate transposition and QR decomposition to obtain an R matrix and a Q matrix, and sending, to the second device, the Q matrix for indicating attribute information of a target path, wherein the dimension of the channel state information is equal to the number of antennas of the first device multiplied by the number of antennas of the second device multiplied by the number of sub-carriers for carrying the first frame; in the first L rows of the R matrix, at least one row meets a condition that elements on a corresponding diagonal line have consistent positive and negative signs in a sub-carrier dimension and/or a sample dimension, L being the number of target paths of the first device and the second device; and the sample dimension is a sample dimension corresponding to a plurality of pieces of channel state information, which are obtained by performing a plurality of channel measurements in a time dimension.

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BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR,
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PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF,
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TD, TG)。

本国际公布：
— 包括国际检索报告 (条约第21条(3))。

(57) 摘要： 本申请实施例提供一种通信方法及装置，涉及通信技术领域，能够降低反馈开销，保留子载波与子载波之间以及脉冲与脉冲之间的相对相位信息，实现有效感知。方法包括：第一设备根据第二设备发送的用于信道测量的第一帧，确定信道状态信息，并进行共轭转置和QR分解，得到R矩阵和Q矩阵，向第二设备发送用于指示目标路径的属性信息的Q矩阵；信道状态信息的维度为第一设备的天线数目×第二设备的天线数目×承载第一帧的子载波的数目；R矩阵的前L行中，至少一行满足对应对角线上的元素在子载波维度和/或样本维度上正负号一致，L为第一设备和第二设备的目标路径的数目，样本维度为沿时间维度进行多次信道测量得到的多个信道状态信息对应的样本维度。