US 20230232406A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2023/0232406 A1

OUCHI et al. (43) Pub. Date: Jul. 20, 2023

(54) **USER EQUIPMENT, BASE STATION AND METHOD**

(71) Applicant: **SHARP KABUSHIKI KAISHA**, Osaka (JP)

(72) Inventors: **WATARU OUCHI**, Osaka (JP); **TOSHIZO NOGAMI**, Osaka (JP); **TOMOKI YOSHIMURA**, Osaka (JP); **Takahisa FUKUI**, Osaka (JP); **HUIFA LIN**, Osaka (JP); **Ryota MORIMOTO**, Osaka (JP); **DAIICHIRO NAKASHIMA**, Osaka (JP); **SHOICHI SUZUKI**, Osaka (JP)

(21) Appl. No.: **17/691,906**

(22) Filed: **Mar. 10, 2022**

(30) **Foreign Application Priority Data**

Jan. 14, 2022 (JP) 2022-004653

Publication Classification

(51) **Int. Cl.**
H04W 72/12 (2006.01)

(52) **U.S. Cl.**
CPC ... ***H04W 72/1289*** (2013.01); ***H04W 72/1268*** (2013.01)

(57) **ABSTRACT**

A user equipment (UE) is described. The UE may comprise high-layer processing circuitry configured to acquire at least a first RRC parameter for indicating whether or not a transform precoder is enabled and a second RRC parameter for indicating whether or not a transform precoding indicator field is included in a DCI format, reception circuitry configured to receive the DCI format for scheduling of a PUSCH and transmission circuitry configured to transmit the PUSCH.